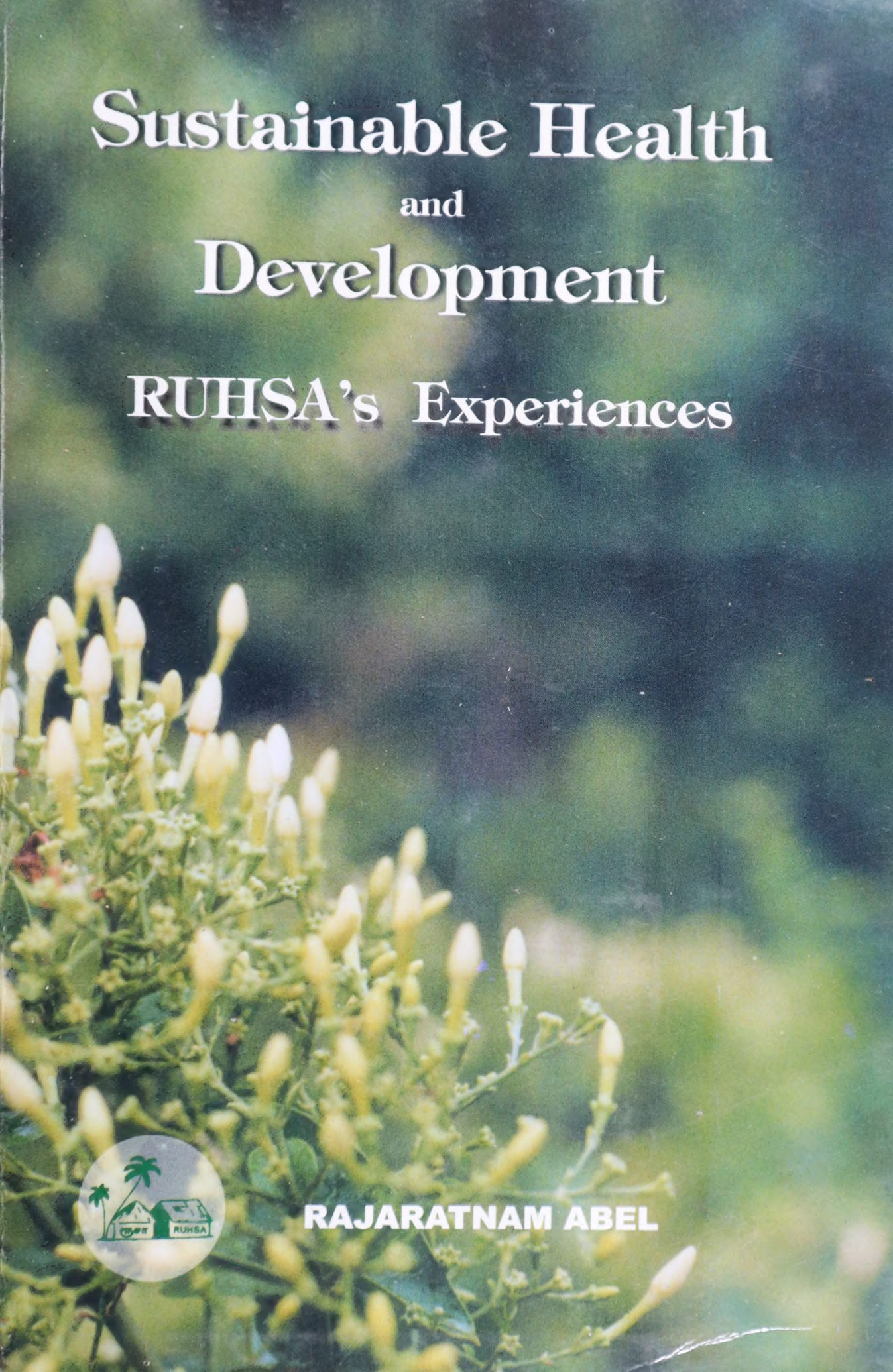
Sustainable Health and Development

RUHSA's Experiences



RAJARATNAM ABEL

SUSTAINABLE HEALTH and DEVELOPMENT

RUHSA'S EXPERIENCES

Dr Ravi & Thelma,
With best wishes
A Rajaratnam
21.8.02.

RAJARATNAM ABEL

Cover Picture : A lush jasmine flower garden that covers large areas of K.V.Kuppam - evidences of sustainable livelihoods, income and ecology.

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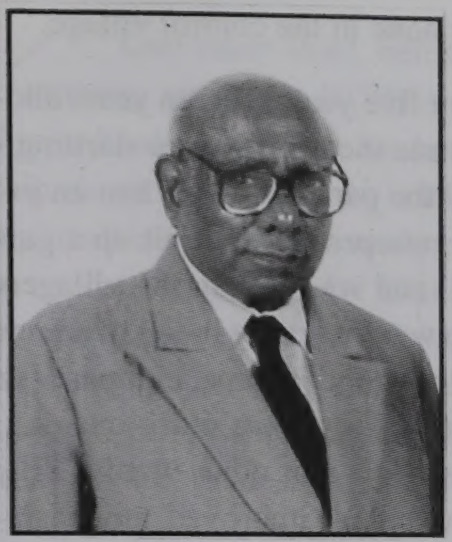
To

Daleep

and

the committed TEAM of staff who over the past quarter century have made RUHSA possible.

A FOREWORD



I am delighted and consider it a great privilege to write this foreword to Dr. Rajaratnam Abel's great record of RUHSA (Rural Unit for Health and Social Affairs), entitled "SUSTAINABLE HEALTH AND DEVELOPMENT - RUHSA'S EXPERIENCES". This Department of the Christian Medical College, Vellore, is an excellent example of the wholistic care of a community (a block) which has succeeded admirably over a period of twenty five years. I wish to congratulate Dr. Rajaratnam Abel and his committed team on completion of a glorious period of service.

It has been aslo my good fortune to be associated with RUHSA from its very origin, and participated in its development and growth for its first decade.

My introduction to the concept of the wholistic care of a community was at the Arogyavaram Medical Centre (formerly the Union Mission Tuberculosis Sanatorium), Madanapalle. There was on the staff of that Centre, in the nineteen sixties and seventies Dr. Johannes Friedmont-Muller Jr., the son of the Founder of the Sanatorium, Dr. Friedmont-Muller Sr.

Dr. Johannes Friedmont-Muller Jr. was not only a renowned specialist, like his father, in tuberculosis, he was also a medical research scientist. Early in 1961, he identified a group of six villages, of more or less equal population and other parameters, and conducted an intensive survey of each village, as a base-line record. He recorded the health parameters, particularly to the health of the community, such as the income of the family, the numbers of cows, chicken, and land possessed by the various families, education and educational opportunities, their ways and means of living and all other relevant data.

This was a massive base-line record of data of his study. Thereafter he conducted anti-tuberculosis work in FIVE villages, such as mass x-rays, detection of early tuberculosis and intensive treatment, supplementary diet in instances of mal-nutrition in children, testing with B.C.G. and appropriate immunization thereafter.

At the end of five years, he repeated his survey of all the FIVE villages and the SIXTH village, in which no such anti-tuberculosis work done, as a control. As was expected, there was marked improvement in the health in the five villages, and very little progress in the control village.

The experiment was conducted on the same lines for another five years, and another survey conducted. The results were the same, namely a significant improvement in the five villages, and minimal or none in the control village.

The experiment was conducted for another five years (fifteen years altogether), and again a survey conducted. But this time the results were startling - the CONTROL VILLAGE was well ahead in all the parameters. When an explanation was sought, it was found that a young entrepreneur had set up a garment making unit in the CONTROL VILLAGE, and was paying the villagers handsome amounts of money for the women who were working in the evenings in the garment making unit. Each family had a very good income, compared to the other five villages, and therefore could afford to eat more nutritious diet, clothe themselves better, send more children to schools. In other words, THE WHOLE SOCIO-ECONOMIC status of the control village improved, emphasizing the fact that HEALTH CARE ALONE IS NOT SUFFICIENT, and that a wholistic approach to a community care and development is the right approach. I had learned the right lesson!

In the mid-1970's, we had a Joint Health Project at Kavanur, K.V.Kuppam Block, in colloboration with the Government of Tamil Nadu, a project worked out by the then Director, Dr.K.G.Koshi and Dr.V.Benjamin, Professor and Head of the Department of Community Health. However, following the breach of relationships in 1975 with the Government, the grant from the Government was stopped, and the Joint Health Project abandoned.

I was unhappy at a lack of a wholistic approach to community health in 1976/1977. One day I received a letter from Dr. Daleep Mukerji, later the 'Father of RUHSA', from London. In essence the letter said that he (Dr.Daleep) had completed a Master's Degree in a non-medical degree, in Social Sciences, from the London School of Economics, and would there be a place for him in C.M.C. I sent him a telegram stating "You are the answer to my prayers. Please come for further discussions and an appointment". I had known Dr.Daleep Mukerji as a very intelligent, talented, and dynamic medical student, with excellent leadership qualities.

Before long Dr.Daleep Mukerji arrived, we had rather extensive discussions, and he drew up a Project Plan, which later became RUHSA of national and international fame.

We were initially funded by the Overseas Development Agency of the British Government. I gave Dr.Daleep the maximum autonomy to develop the

project on wholistic grounds. And the grand success of RUHSA, Dr.Rajaratnam Abel has faithfully and accurately recorded in the following pages.

One more word, before I complete this foreword. I have always had a continuing interest in RUHSA as my second son, Dr. Inbakumar Joseph, now a Senior Medical Officer, has been in RUHSA since the completion of his internship, from 1986 onwards, and it gives me tremendous joy and satisfaction that my medically qualified son is continuing to devote his life to the poor and those in need in RUHSA. He is fulfilling an ambition of mine, which I could not complete, namely to be a doctor / surgeon in a Christian Mission Hospital in a rural set-up. I began my career as a doctor in such a Hospital, the Katherine Lehman Hospital (the American Lutheran Hospital), Renigunta, Chittoor District, Andhra Pradesh, before CMC 'kidnapped' me!!

DR. L.B.M. JOSEPH
Retired Director and Professor of Surgery
Christian Medical College and Hospital, Vellore

PROLOGUE

This book represents the contribution made by Christian Medical College to the people of K.V.Kuppam block of Vellore District, Tamilnadu, India. Started primarily as a centre of service for the health needs of the people of this block it has effectively served the rural populations especially with reference to the poor and the marginalized.

God in His own way and time brought together situations and people so that Christian Medical College, which was built for the poor, did not completely loose sight of that divine purpose. It is difficult to know the real poor within the walls of the main CMC hospital, but RUHSA situated and working at the community level would be better able to serve the poor. For the money spent by the institution more poor people are fully satisfied and happy through RUHSA than an equal amount of money would achieve in the main CMC hospital. So God in His love and wisdom took care of the destiny of RUHSA so that it would continue to serve the people and the institution for His name's honour and glory.

The credit for starting and building up the entire programme belongs to Dr. Daleep Mukarji whose vision in designing the programme in great detail and using all the resources gained through his education in two prestigious institutions of learning laid a strong foundation on which his successors could continue to build on. It is doubtful if any other leader at that point in time would have been able to make a bold departure from the traditional clinical model community health to an integrated health and development model. These pages are a tribute to one who was able to build something entirely different in RUHSA.

If Daleep had the vision and training to plan and implement RUHSA, the way it has grown today would not have been possible but for the consistent and unwavering support that Dr. L.B.M. Joseph the then Director of CMC gave to him. It was the nurturing by Dr. Joseph that took care of all the problems and difficulties encountered in establishing RUHSA. Without Dr.Joseph, RUHSA could have ended in stunted growth with all the attendant short comings.

RUHSA has always been team work. People of every discipline have contributed to the growth of RUHSA. Over the years those who found it difficult to work as part of the team have invariably been disappointed and left sooner rather than later. However many have continued to stay on and continue to provide the growth and sustenance of RUHSA. RUHSA is the reward for their hard work.

One of the conditions on which RUHSA was to be started was based on funds being available. Therefore without any shade of doubt RUHSA is also a testament to the trust and confidence that many funding organizations had reposed on Daleep to begin with and to those of us who followed him. The liberality of a number agencies who provided for the growth of RUHSA has not only established RUHSA firmly but they can certainly be satisfied with what RUHSA has been able to do and be sustainable even long after they have stopped funding.

RUHSA has had two lives. First, it was an autonomous existence from 1977 to 1985. This life was marked by enormous freedom. The second life was as a department of a century old institution starting from July 1985 onwards. This life was marked by bureaucratic controls. However, being part of a large institution with all the safety checks and the mutual support from colleagues and administrators has been a rewarding experience. Today Christian Medical College has under-written the essential or core expenses of RUHSA as long as the poor and the marginalized are taken through the development pathway.

There has been a constant battle in keeping data to the minimum. Some hate data while to others without data all achievements are only anecdotal. RUHSA having a gold mine of well maintained data, discretion was needed in selecting only those that contribute to a full understanding of RUHSA's work. The focus of this book is on 'How' rather than on 'How much'. If this thought is kept in minds numbers will not create any difficulty.

In a country like India there is no defined end point in the development process. When one problem is solved another hidden one emerges. Each successive problem requires a different strategy to overcome the problem. Therefore RUHSA is a continuously learning and sharing organization so that without physically moving on to a new area, through its training, consultancy, evaluation and research, others are empowered to carry on development work in different parts of the country.

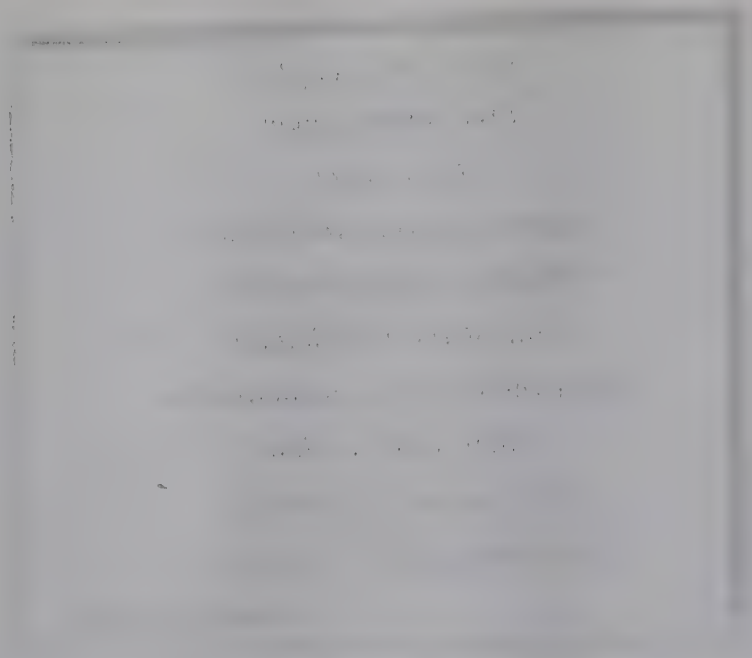
Finally RUHSA is about people who have willingly contributed their time and effort in its growth. Ultimately without them RUHSA would never have reached this level of in its growth. In RUHSA's development pathway it is they who have taken all the risks. In sustaining all what RUHSA has achieved it is the community that has a greater role than even RUHSA. They have shown how they can do it which is also an assurance that they can achieve sustainability even in the future. It was no idle poem that adorned Daleep's office.

Go to the people
Live among them
Love them
Start with what they know
Build on what they have
But of the best leader
When their task is accomplished
Their work is done
The people all remark,
We have done it ourselves

- Lao Tse Tung

RUHSA's experiences shared through various means have contributed to the evolving paradigm on sustainable health and development. It is hoped that this book would contribute to that process. Therefore dear reader, you are welcome to read this book critically and give your valuable feed back so that it would lead to further refinement to the emerging concepts of health and development.

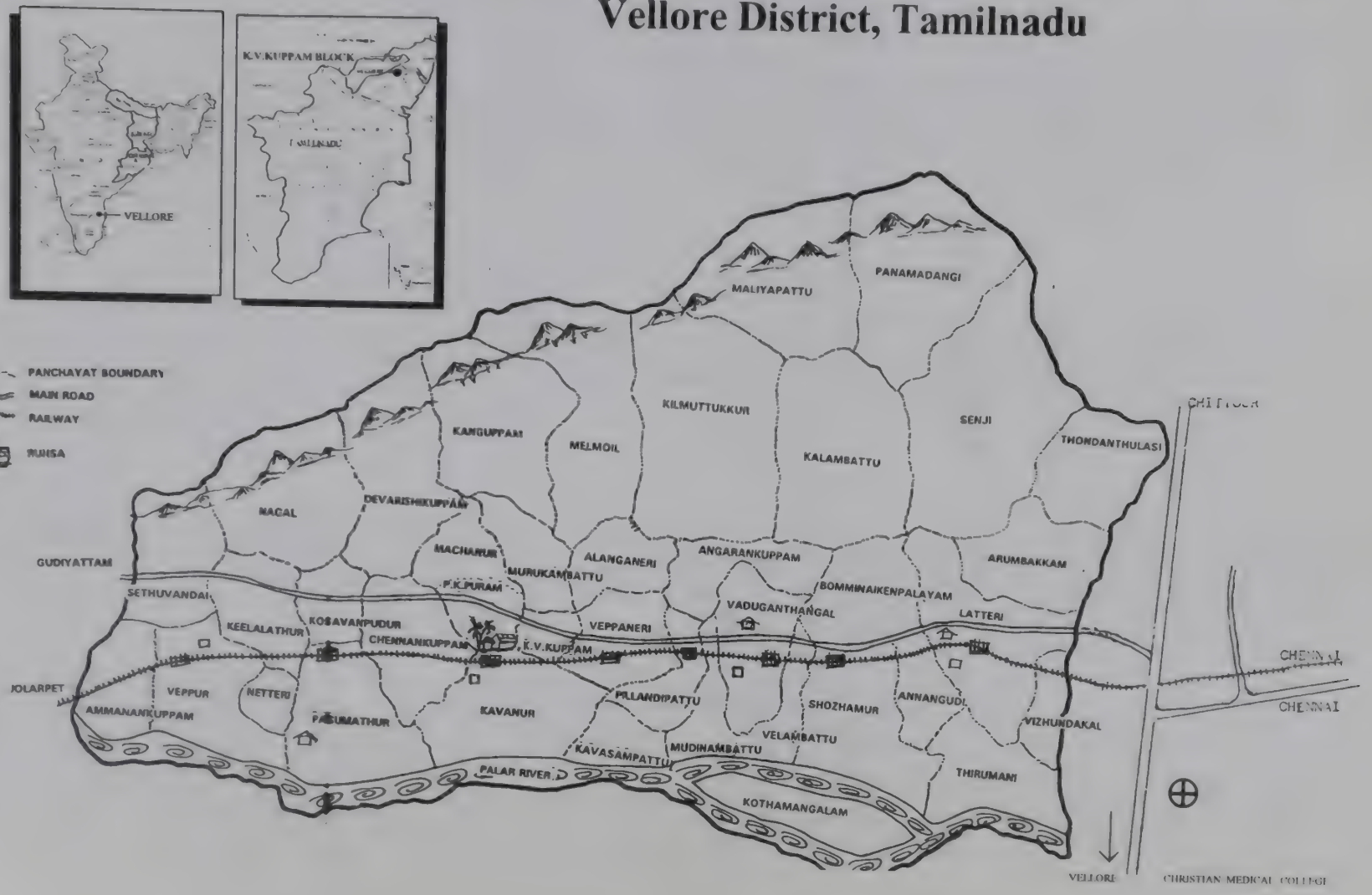
This book is possible only because of the hard work of staff at different periods of time. Additionally many of the senior staff have gone through individual chapters and gave their comments. However in the final presenting of this book some names must be mentioned. Mr. Immanuel, Mr. Mathew and Dr. Inbakumar have gone through detailed editing of the entire book in addition to giving suggestions for overall improvement. Mr. Sanjeevi co-ordinating the computerizing the book without letting other work fall behind, Mr. Srinivasan, Mrs. Vatchala and Mrs. Punitha were the three who at times had to take extra effort to computerize the entire work. Finally I would like to thank my family members Jolly, Sherene and Rufus for providing not only moral support but considerable editorial support as well in great detail. No work of this nature is possible without the wisdom, strength and perseverance provided by the Lord almighty. He was always near to help me finish this work.



Inside.....

RUHSA Project Area K.V.Kuppam Block

Vellore District, Tamilnadu



Section I

THE FOUNDATION

This section starts with the historical beginnings of RUHSA and how it was built up including the pattern of funding, staffing and infrastructure built. There is an attempt to explain the philosophy behind RUHSA and the model that evolved over time. It ends with a brief conceptual base on sustainability and what it meant to RUHSA and how others can relate to this major concept.

1. "..... but to serve"

For over a hundred years Christian Medical College, Vellore, India, has faithfully followed it's motto, "Not to be ministered unto but to minister." Always it has sought for ways of serving people and bring about relief of suffering in a "Spirit of Christ." This has meant providing loving, and compassionate care to people in greatest need. Although at the end of it's first century both technology and market forces are constantly challenging the way CMC has provided healing services, sincere efforts are made to cater to the needs of the poor and marginalized. RUHSA is a significant effort of that consistent desire.

The year 1975 is a year very few who worked at that time will forget. At seventy five years, CMC was reaching its stage of maturity. Moving from an institution almost entirely dependent on overseas missionaries to entirely Indian leadership and money, was one major outcome of this maturity. It was a year when CMC moved away from a benevolent management to one guided by legal principles applicable in India. The process itself was painful and traumatic. As those who passed through that experience share the pathway through which they went, it is clear that God was very close to the institution He had founded.

The Rural Unit for Health and Social Affairs (RUHSA) was one of the "births" that followed this experience. It came about in this manner. When CMC went through its major crisis with a strike in 1975 it was clear who were for and who were against the institution. However what stood out quite clearly was that the people of Vellore did not take sides. While in 75 years CMC had grown to be an institution of national and international acclaim, the above situation appeared to indicate that it was locally irrelevant although most of Vellore's business depended on the prosperity of the institution. The local people in general were indifferent to the crisis that was going on. When the strike was over and the institution started building itself again, it wanted to do something locally significant.

Simultaneously there were changes taking place in the field of medical education in India. A new programme called Re-orienting Medical Education (ROME) was being introduced in the country. This scheme envisaged that each medical college should select three community development blocks in its vicinity and use this as a field study area for teaching medical students so that

they can be prepared for rural India in a more relevant and appropriate manner. This further contributed to setting an ideal situation for starting a programme like RUHSA.

Two tasks remained. The first was to identify the leader and the second was to locate the area where RUHSA was to work. The choice of a leader fell on Dr. Daleep Mukarji, from the M.B.B.S. batch of 1964, and an alumnus from St. Paul's School, Darjeeling. On completing his medical studies at Vellore, he spent a few years at the mission hospital in Ditchpalli, Andhra Pradesh, primarily involved in leprosy work. Subsequently he completed the Diploma in Tropical medicine and Hygiene at the London School of Tropical Medicine. He then completed the M.Sc. course in Social Planning from the London School of Economics being the second medical graduate from India completing an economics degree from this prestigious institution.

Dr. Mukarji submitted a project proposal to the administrators of the institution in 1976. It is worth recalling the first resolution passed by the governing Council of the Christian Medical College Vellore Association. Council (4790: 10-76) which reads as follows:

> "Resolved that while many details remain to be worked out, the project be approved in principle in its basic outlines, especially with regard to:
>
> 1 Decision to initiate the project if funds can be obtained for its support, and to authorize the Director to seek such support.
>
> 2 To give the project a degree of freedom within CMC by having it as a special project under the director of CMC with its own annual budget and accounts to be submitted through its managing committee to the Administrative Committee and the CMC Executive Committee and Council but with freedom to operate independently within its approved budget.
>
> 3 The Director of CMC shall appoint the Project Director on behalf of the Council. The other project staff shall be appointed by the Project Director with the approval of the Managing Committee of the project.
>
> 4 To permit salary scales and perquisites that may be slightly different from the present project scales at CMC, or to allow creation of a few new scales within the present salary structure.
>
> 5 To permit RUHSA to use existing facilities at Kavanur if this is chosen as the site of the project.

The next major task was to plan how RUHSA would fit into the larger institution. Expecting quick success it was to be started as special project of

the institution. To ensure quick decision making it was to be autonomous with a separate management committee. Then to get the best people the salary was to be fixed higher than the existing CMC salary, which had seldom been an attractive feature of the institution. To a 75 years old institution, this was considered as heretic by some, who were sincerely concerned.

Entrance to RUHSA

Where was RUHSA to be situated? It was clear that under the ROME scheme it had to be somewhere closer to Vellore and yet not too far where medical students can come for training. It needed sufficient land for future growth. After visiting a number of blocks around Vellore, the old Kavanur Rural Centre campus was chosen as the home for RUHSA. So K.V.Kuppam block, considered one of the most backward blocks of Vellore district was chosen as one of the ROME teaching blocks.

RUHSA's growth can be broadly classified into five phases as follows:		
1. Preparatory phase	-	Up to January 1977
2. Development phase	-	January 1977 to November 1978
3. Growth phase	-	November 1978 to April 1985
4. Consolidation phase	-	April 1985 to July 1991
5. Maintenance phase	-	July 1991 to present

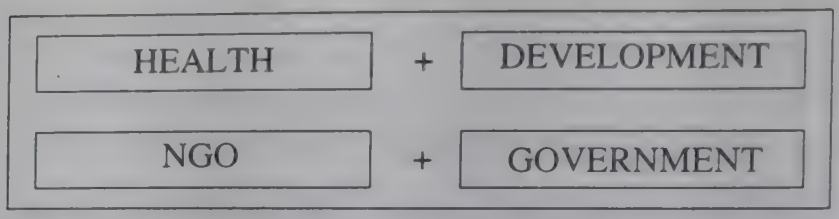
2. THE RUHSA MODEL

To understand the RUHSA model one needs to go back in time to the period 1975 to 1978. The world of community health and health economics was witnessing some important changes. Mentioning the names of a few people may not be out of place; Dr. David Morley, father of social paediatrics and of the Road to Health chart; Dr.John Bryant, author of Health and the Developing World; Dr. Carl Taylor, founder of Narangwal project, and Dr.Brian Abel Smith, the father of modern Health Economics. Drawn from different backgrounds they were involved in giving shape to the concept of "Health for all." That almost all of them took classes for Daleep in London is no mere coincidence. The key thinkers of that time had a profound influence on young Daleep as he studied in London. In no small measure did they contribute to Daleep's thesis both for DTMH and M.Sc.

It may also be useful to go even further backward to the late sixties. Daleep belonged to a batch of 60 individual thinkers who could seldom agree on anything quickly. As the batch was completing its undergraduate medical studies one assignment had to be completed. This was a presentation on what they had learnt over a two year period from the two families allotted to them during their community health posting in the third and fourth years. Having visited these two families regularly and understanding the village environment in which they lived, it was amazing how this disintegrated batch thought alike on this problem. The near unanimous conclusion was that "the health of the people in the villages would improve only if their economic situation was improved." Little did they realize then the likely direction that initial experience was going to take them in.

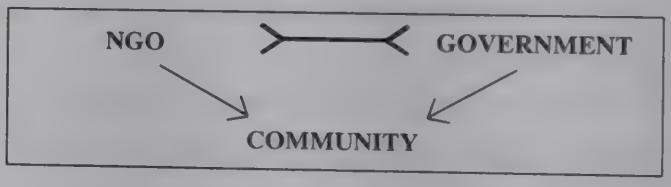
What was common in both the above experiences? It was the growing realization that health of the people cannot be improved by doctors and nurses alone. Unless changes were made in the social and economic aspects of the community, health changes could not be expected. This philosophy was an entirely new shift in paradigm. To improve the health status of the people it was necessary to integrate health care delivery with other sectors. These other sectors were broadly brought under the term "development." Thus RUHSA brought together the terms health and development to signify an inter-sectoral approach to health.

The following model illustrates the model in a simple manner.



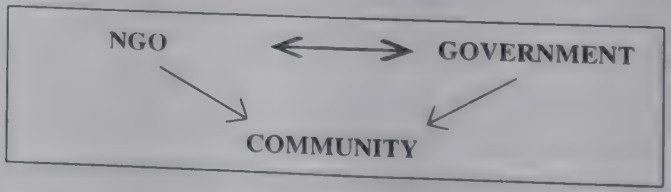
The RUHSA MODEL essentially consisted of two important components. The first one consisted of integrating health and development. The model envisaged that the services would be directly provided by a team of professionals drawn from the fields of Training, Education, Agriculture and Medicine (TEAM). The target populations were identified as the poor, children, mothers and youth. Much of this book attempts to describe in great detail RUHSA's success in development work in K.V.Kuppam Block. The second component was that RUHSA as a Non Government Organisation (NGO) worked very closely with the government by choice. This could take any of the five following approaches. They work singly or in combination with each of the other approaches.

1. Both Government and NGO Providing Services without coordination



In RUHSA this approach did operate in some areas. Choice of beneficiaries for various benefits like old age pension and preparing below poverty line are good examples. This was best illustrated at the time of the mid course evaluation in 1983. When the external evaluators interviewed the officials of the various Government Departments the almost uniform response was "except in the area of my department RUHSA did excellent work". Imagine many department heads saying the same thing. Incoordination between Government and the NGO could be the worst form of relationships.

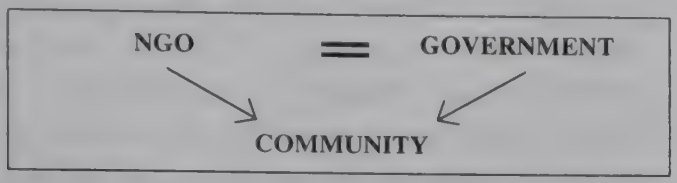
2. Both Government and NGO providing Services in a coordinated manner



In this approach both the Government and (NGO) machinery work side by side. To ensure effective coordination the Government of Tamilnadu

through a Government Order transferred the technical control of the Primary Health Centre at Vaduganthangal to CMC. This gave RUHSA tremendous opportunities to plan and coordinate the health inputs in KVKuppam block.

3. Both Government and NGO working in Partnership

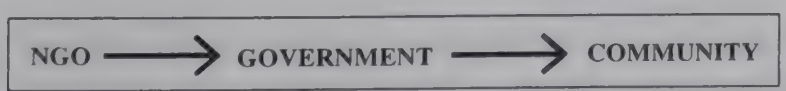


In this approach both the parties carry on the tasks with shared costs. The best example is that of the Mini Health Centre Scheme operating in Tamil Nadu during the first ten years of RUHSA's work. Although the work was implemented by the NGO, the estimated costs were shared proportionately between the NGO and the Government. It was a good scheme, however it did not last long.

4. Government working through the NGOs

Recognizing the important role that NGOs can play, many International Funding Organizations insisted that some programmes must be implemented only through NGOs with the Government providing the funds and carrying out monitoring. This is best illustrated by the IFAD funded Self Help Groups (SHG) in Tamil Nadu. All activities at the community level were implemented by the NGO. Government provided the financial support and monitored the working of the NGOs to ensure that the programmes were carried out effectively. RUHSA had excellent working relationship with the Government in the SHG programme.

5. NGO working through the Government



In this approach the NGO allocates a sizable portion of its grant to fund the efficient working of the government programme. This approach is best illustrated by the World Vision of India (WVI) project in Ballia, Uttar Pradesh. WVI spends money on training government personnel both in India and abroad, providing for capital inputs to supporting the government

infrastructure. Then they make the government staff to work. It worked in Uttar Pradesh. RUHSA has used this approach very little in K.V.Kuppam in the area of supporting education through the government school system.

Working relationships with Government

Of all the Government Department the closest working relationship was maintained with the Health Department. RUHSA coordinated its working relationships through the Primary Health Centre, and also with the health department at the district and state level. To overcome the duplication of services both by an Non Governmental Organisation (NGO) and the government it was decided to withdraw the PHC once the NGO RUHSA was able to provide adequate levels of service. To facilitate this process two government orders were issued. In the first instance the Government through an order transferred the technical control of the Primary Health Centre (PHC) at Vaduganthangal to Christian Medical College and the institution to RUHSA.

Daleep with Dr. V. Benjamin the Professor of Community Health and Dr. Hande the then Health Minister of Tamilnadu

The second Government Order related to a new scheme operating throughout the whole state called the Mini Health Centre scheme. Under this the health work at the sub centre level were transferred to select NGOs on a cost sharing basis, to provide selected health service to the community. RUHSA was allotted 16 mini health centres thus covering the entire block.

Just in passing it is worthwhile to state that both schemes worked well for a considerable period of time. When it came time for the government to withdraw their staff after giving technical control and just as the orders were ready, the Health Workers Union obtained a stay from the court. Their staff were never withdrawn. The second programme had implementation problems at the state and died naturally over time. In spite of these, the working relationships with the Government remain cordial and mutually supportive.

Although RUHSA was part of a medical college and its attached hospital, it was not envisaged that its staff would be training faculty. However, it was envisaged that the experience gained by RUHSA would be utilized for training medical and nursing students as successful practitioners rather than as academicians. Unfortunately, for various reasons, the medical students were trained only once in RUHSA.

Success of RUHSA was to be finally tested by replicating the model in a neighbouring block after successfully covering the K.V.Kuppam block the first service area. This was considered as the incremental model of scaling up its achievements. Fearful of the likely heavy investments in infrastructure, similar to K.V.Kuppam the next block was not given to RUHSA.

This model assumed that technology that is appropriate for the rural areas would be adopted in health care delivery. Community participation, community development, agriculture and livestock development were some of the development areas identified to improve the health status of the community.

Stated simply the RUHSA model was one that decided to co-ordinate its programme with the government by choice. It was an inter-sectoral health and development programme with equal budget and personnel provided for both the areas.

3. THE FLYING DUTCHMAN

Unlike in the past when RUHSA had great autonomy, in the new order RUHSA was to be a part Christian Medical College the parent institution. The transition was sudden, dramatic, and least expected. There was uncertainty in the air. It was rumoured that during a particular week the post office in the campus did roaring business with a large number of staff sending out their bio-data for alternative employment. The prophets of doom had made the first prediction that in two years time RUHSA would close down shop unable to bear its own weight.

It was in this mood of uncertainty and gloom that the Flying Dutchman arrived. He represented one of the key organizations that provided the vital funds for RUHSA's work. He came to discuss and give feed back on a pending application for continued grants.

He was unusual for a westerner and particularly a Dutchman. Although he was paid well he smoked beedis - the country type cigarette. It was believed that he must have particularly enjoyed it rather than of necessity. He spent three days. He was shown the entire programme and he was giving his final feedback.

Like all Dutchman trained in the art of communication, he took time to greatly appreciate all what RUHSA was doing. He went into great depths restating all what RUHSA was doing. Then he started uttering words that were music to the ears. He was approving continuation of grants to two of the projects that had been earlier funded. What satisfaction!

And then the bombshell dropped. He paused for a while after uttering the word 'but'. This word caused some anxiety as his following words were not anticipated. So he stated his assignment very clearly. Yes, his organization would continue the earlier funding for three more years and then RUHSA had to find its own way to fund the programme. So he reasoned. In the past, funding agencies were not particular about how long they would fund a programme. As long as the projects were doing good work, funds were reasonably assured. Not so any longer. It was anticipated that within a period of 6-8 years programmes should be able to stand on their own feet and for the first time the word 'sustainability' was introduced to RUHSA.

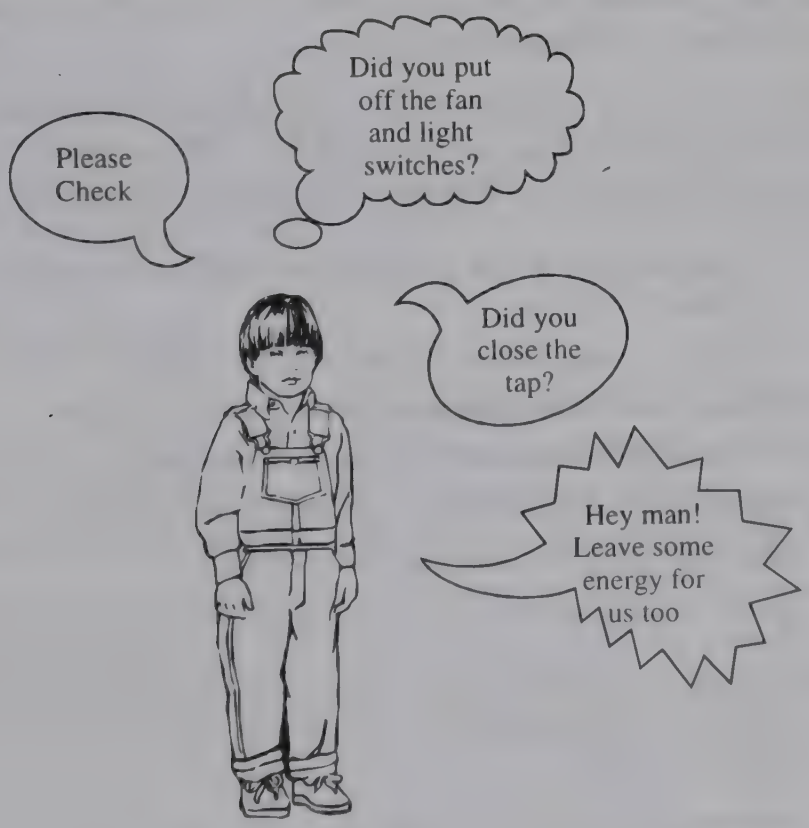
The words that RUHSA and its leadership were grappling with till then were 'financial stability', 'financial independence' and 'viability of RUHSA'. Now one was left to ponder over and understand a new terminology 'sustainability'.

With nearly a fifth of the over 220 staff being supported by this funding agency the immediate concern was how it would be possible to raise the necessary funds to pay the salary for all of these employees. Sustainability at that point meant only survival and the budgets were to be adjusted. Only as time went did each one began to grasp the full meaning of that word.

Sustainability

So what really did the Flying Dutch man mean when he introduced the word sustainability? This word actually means different things to different people. Starting with the funding agencies who really popularized it, it was a professional way of saying "We have funded you for a long enough time. Sorry we cannot give you any more funds. Please find your own way." But the word has a much longer history as well as a broader meaning than just stopping funds.

Although it has a bearing on money and economics, in the strictest sense it is not about money but about life styles. The following cartoon pasted inside a toilet door of a catholic institution beautifully sums up what sustainability is all about.



Basically the issue of sustainability is about the earth and its resources. There is a limit to the resources of the earth. Our life style determines how

we utilize those resources. As Gandhiji has said, 'There is enough in this world to meet our needs but not enough to meet our greed".

One of the best treatise on this topic is the book "Our Common Future" written by Gro Harlem Brundtland and her colleagues as part of the Brundtland Commission.

In that report sustainability is defined as

"..... development that meets the need of the present without compromising the ability of future generations to meet their own needs."

This report set a major debate started on the major issues of utilizing only what we need and not lavishly wasting the resources. Even though individually some may be able to afford more than they need, the whole earth does not have limitless resources.

What is sustainability?

Disagreement exists about the precise meaning of the term "sustainability." The term is used in many contexts, including development, cities, agriculture, economy, technology, environment, buildings, etc. Confusion exists about the meaning of the term, since it is used in so many different contexts and often is defined differently.

Below are seven procedures that organizations and communities go through as they develop efforts at sustainability. These steps can be applied by any group or individual relating to the broad areas of sustainable development.

1 Developing on going programme structures for the sustainable community efforts
2 Creating a sustainable organizational vision
3 Setting goals and objectives along with indicators
4 Developing sustainability guiding principles
5 Designing and prioritizing potential activities
6 Choosing and implementing activities.
7 Evaluating progress and revising activities accordingly

However in an organizational setting there is subtle shift in emphasis. The three elements of sustainability in this context are as follows and are described in greater detail.

1 Organizational sustainability
2 Programme sustainability
3 Financial sustainability

Organizational Sustainability

If after doing good work, utilizing available resources, and then if the whole organization closes after the funding stops it is of no use. Even when funding is available, the organization should have developed alternate sources of income so that essential components of the programme continue.

There are three aspects of organizational sustainability as listed below:

- Organizational continuity
- Leadership continuity
- Necessary human resources continuity

Therefore not only should the organization survive, but if necessary even changes in leadership should survive. There are some excellent institutions where programmes and successive leadership have lead the organization in a sustainable manner.

Finally, there should be continuity of essential staff. It does not mean that the full complement of staff as at the height of a programme should continue. Nor does it mean that original staff should continue. Even if new staff have been recruited, and even if strength is reduced, there should be enough staff to carry on with existing work. Staff sustainability is possible when community based leadership is well developed and where second line leadership have been proactively developed. The staffing pattern should be clearly defined and should not be increased just because funding is available. Selecting and training local resources are more sustainable than depending on experts from outside, who might stay only for a short while.

Programme sustainability

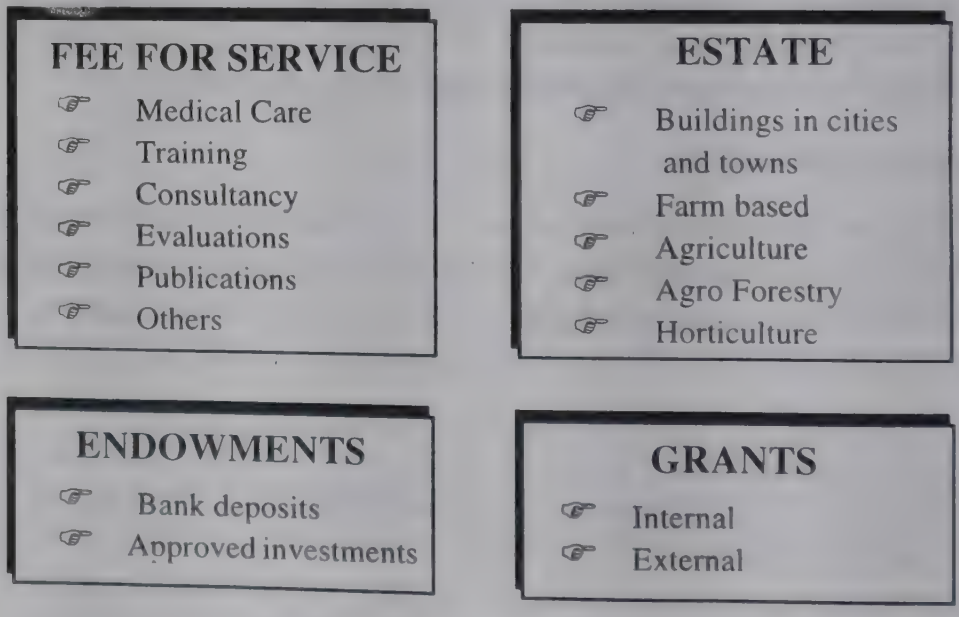
Just as the organization must be sustainable so also must be the programmes being implemented. Programme sustainability depends on the ability of the leaders to ensure community support to the programme as well as dropping off activities which are themselves sustainable or have no further need.

Again sustainability does not mean every activity, but those that are considered basic to any programme. Sustainability depends upon regular income to the community through income generation activities. This provides the necessary resources to the community to pay for services rendered by the organization making it more sustainable. Also all buying and selling at the community must be integrated into the regular marketing infrastructure than being dependant on the organization.

Finally, for organizational sustainability it is important to understand and decide which programmes can be dropped completely. Rehabilitation of polio handicapped children can be stopped with successful rehabilitation and successful immunization completely eliminating new cases of polio. Leprosy programmes when they reach a low level can be integrated with the general health services. Similarly adult education programmes can be discontinued once sufficient illiterates have become literate or if the existing school system is effectively strengthened.

Financial Sustainability

Finally sustainability also covers the area of finance. Funds should be available to carry on the activities that are continued. The general principle is that there should be multiple sources of funding or income. There are four broad areas of income. The most sustainable is fee for a wide variety of services provided. Investments in estate could provide additional income. In the past, endowments were a good source of income, however with interest rates coming down it is not attractive today. Investments in government approved industries and businesses would be the other option. However voluntary organizations would continue to depend on external grants either from national or international sources. Ultimately for financial sustainability the funding has to come from multiple sources as shown below: The details are outlined in the four categories below:



4. BUILDING THE INFRASTRUCTURE

One of the unique features of RUHSA was an autonomous management structure within a large 75 years old hospital. The purpose of the autonomy was to facilitate quick decision making in relation to developing the infrastructure so that the objectives are achieved within the established time frame. Three broad areas of planned infrastructure contributed to RUHSA's work, namely personnel, buildings, and vehicles. Leading a Team of professionally competent staff was not always easy particularly when the management process was changed midstream.

Personnel

The outline of the staffing pattern was clearly planned right at the start of the programme. Therefore to some extent the growth of staff was predictable. However as demands grew especially in the development areas more professionals were included than originally planned. For instance, the original proposals had only an agriculture section, which provided both for crops as well as livestock. Since the people's major felt need was livestock a veterinary section was later added on. While these additional personnel were needed, if a legally acceptable procedure had been adopted then sustainability would have been easier.

Some key principles were adopted in selecting personnel for RUHSA. The first was a need for being professionally trained for the tasks. It was realized, that too right in the beginning, that there are no fully trained persons available who will fit into rural community based health and development work. The training provided to students of sociology, social work and even rural development were more theoretical than actual hands on practical work. There was therefore a need to additionally train fresh graduates and post graduates to be prepared to carry out rural health and development work. In fact the first set of staff numbering over 30, had extensive training before they moved to the community. Subsequently it was easier for new entrants to learn quickly from those already working. The following table shows the staffing position of RUHSA at different points in time.

Staffing Pattern in RUHSA					
Staff Category	**1978**	**1984**	**1990**	**1996**	**2000**
Health	19	67	59	56	58
Development					
Community Organization	27	40	32	20	12
Agriculture	1	11	7	0	0
Socio-economic activities	1	10	23	0	0
CERT*	2	39	42	19	21
Administration	22	54	49	29	30
Total	**72**	**221**	**212**	**124**	**121**

* *Consultancy, Evaluation, Research and Training*

The following table shows the expenditure pattern at RUHSA to maintain the infrastructure created.

No.	Year	Expenditure Rs.	No.	Year	Expenditure Rs.
1	1978	5,02,500	14	1991	49,23,487
2	1979	9,27,600	15	1992	54,86,707
3	1980	17,07,700	16	1993	64,37,528
4	1981	22,00,200	17	1994	65,66,480
5	1982	21,37,400	18	1995	60,46,914
6	1983	21,11,200	19	1996	67,19,641
7	1984	25,43,100	20	1997	74,03,662
8	1985	29,28,600	21	1998	92,30,089
9	1986	31,34,200	22	1999	1,04,378,460
10	1987	35,62,200	23	2000	1,18,30,258
11	1988	36,14,100	24	2001	1,47,22,717
12	1989	29,38,481	25	2002	1,57,94,919
13	1990	42,46,133			

Another principle adopted in staff selection was that when two persons with the same qualification and background were available, the local person from the project area was given priority in selection. This was scrupulously followed in the first round. There were some inherent problems in this approach that surfaced over time.

Locals who have social and political clout in the community tend to find it difficult to fall into institutional discipline. The very first instance when such indiscipline was noticed the concerned staff was terminated. The fall out of this action was quite significant as it diverted leadership attention responding to problems arising from the community.

Another similar issue was observed when people with lesser qualification were trained and then employed under special time bound projects. They created a different type of problem. By the time a project is over, based on the experience gained, a strong relationship is established with such staff. Instead of terminating the relationship they are taken up in another project activity and suitably retrained. Since this cannot go on indefinitely, at some point the relationship had to be cut. Finally when they are terminated they are induced to go to courts. Fortunately the initial few judgements have clearly indicated that a staff employed in a project can be retrenched on completion of the project if they have not subsequently been employed in another project. However if a project is of quite long duration and when a staff has worked for over 10-15 years it is not clear whether the above principle is acceptable.

Multidisciplinary functioning of staff was another guiding principle. Working at the community level with staff who have multi-competent skills are far more effective in their work than those with single skills. It contributes to better team work. This builds in peer support and control for better quality of work.

Another area relates to equal representation to both sexes. This was the accepted principle of RUHSA. The initial lot of Rural Community Officers was selected equally. For the 18 peripheral service units 18 male and 18 female staff were appointed. Since rural development work involves working closely with the community, it often means that work must be carried out till late in the evenings. In the late seventies, single women found it threatening to stay back in the village nor could they get back late at night. When some parents saw their daughters' plight, they withdrew them. Others left gradually. On completing 3 years of work it was found that there were only 5 of the original 18 who remained. Subsequently, the rural community based development work has been carried out only by men, supported by women volunteers from the community. On the other hand the nursing profession has been completely handled by women, except for one male nurse who was able to play a significantly greater role due to his mobility.

Capacity building of staff has been another area of mixed experiences. Short term workshops and training programmes are better than long term ones. In house training facilitated by external experts is better than sending staff

outside. In country training is less risky than overseas training. Participation in conferences, exposure visits and special programme of capacity building without a resulting certificate, ensures continuity rather than high profile costly courses with high value market certificates. This raises a larger question as to whether long term retention is important or staff turnover at fairly regular intervals. Where value systems operate it is better to have continuity of committed staff rather than being forced to adjust to new professionals at regular intervals.

From ongoing experiences it is clear that instead of deputing staff to other centres for training in broad areas of organizational need, it is better and more effective if experts are invited to train staff in the organizational setting. Training a larger number of staff in the core areas of an organization ensures better teamwork than when individuals are trained in different areas. When individuals are sent out for capacity building, the sharing of the expertise gained varies from no sharing to total sharing. However in general the sharing is far less than necessary for teamwork.

Volunteers

Besides full time staff there were volunteers planned into the programme. Initially they were introduced in the area of health. Subsequently others were introduced. The list of volunteers is as follows:

1. Family Care Volunteers (FCV)
2. Health Aides (HA)
3. Adult Education Animators
4. Adult Education Facilitators
5. Mobilisers
6. Village Agriculture Guides (VAG)
7. Village Veterinary Guides (VVG)
8. Women organizers (WO)

It was realized that volunteers from different categories would be the correct interface with the community. They were considered the eyes and ears of RUHSA to identify people's needs as well as the mouth of RUHSA to provide the education and motivation needed for change in the community.

Except for the health volunteers all other volunteers were project based. When the funding came to a close, their services were discontinued. For the FCV there was an endowment created that committed their continuation at least till the end of 2000 AD.

For all categories of volunteers, completing 10th standard whether pass or fail was required except for the FCV. In villages where animators and facilitators with the above qualifications were not available, this requirement was reduced to 8th standard.

In opting for FCVs even without educational qualifications, the underlying basis was that in every community, there were strong opinion leaders who influenced community decisions especially in the care of children and mothers. It was important to obtain such individuals with influence rather than qualified individuals who could not influence the community.

Therefore the selection process was also different. For those requiring educational qualifications normally there was a formal selection procedure with tests and interviews. However in the case of FCVs, there was a proactive process of identifying women with the required qualities of helping the community. Very often it would start with asking a few women as to whose help or advice they sought in times of need such as illness, travel, or family problems. Invariably in an average village, two or three names would come up repeatedly. It becomes clear that the FCV being considered was within these three women. Sometimes one or two would not be interested to be an FCV. Then the choice was easy. If all or two of them wanted to join then the community was requested to choose.

There was one occasion when some tried to bypass this process. A clinic doctor recommended one of the women, who was very helpful in the clinic, to be selected as FCV. It was a very strong recommendation coming as it was from the team doctor. Just as a note of caution, the same was checked with the community. To RUHSA's surprise they rejected the choice. When asked the reason, they replied "she drinks". A woman drinking alcohol in the village was not acceptable as their health volunteer.

Staff nurse Lilly Joy providing review and training to Family Care Volunteers at RUHSA

All categories are trained for their tasks. The health volunteers have had the longest training, in fact theirs is a lifelong training. Intensive initial training is followed by intermittent review and training according to introduction of newer topics and programmes. Only the FCVs received 1 week initial

training followed by a community based assignment over 4 weeks and then a follow up of 1 week training.

While most training of volunteers was straight forward relating to their area of work, the training of animators of adult education was far more motivational with some response from the learners quite early in the programme. The training was somewhat emotional and rousing. After one such training the animators went to their village and trained the learners. Within a short time they were motivated to fight for fair wages from the rich landlords. Unfortunately it ended in a major community conflict with the poor learners ending up with cuts and beatings. This approach was never again promoted.

Since health volunteers have been with RUHSA for a long time, periodic evaluations of specific project activities have indicated that when trained at their level, even illiterate women are able to grasp the key concepts of various health problems and were also able to communicate them effectively to the community. A doctor from UK evaluated the knowledge of FCVs on tuberculosis and concluded that the "FCVs knowledge on tuberculosis is as much as that of medical students in UK."

Payment for volunteers has been a sensitive area. Whatever is paid to the FCVs is a token honorarium. It does not represent a living wage. It presupposes that they are alternately employed in some livelihood in the village either as farm labourer, farmers, small business holders, sweepers etc. The Health Aides have used the opportunity to upgrade their knowledge and skills and the successful ones have ended up in well paid jobs. One Health Aide completed her M.Com. degree before she married a rich farmer.

One of the issues they faced was that when as volunteers they attached themselves with RUHSA, their status in the community went up. Then they found it difficult to go back to the same work as before. This resulted in a situation for FCVs, where the honorarium they receive was inadequate for their livelihood. In turn they got disgruntled, constantly complaining that the honorarium was inadequate and putting pressure to increase the amount. As members of the community they received many benefits. A number of them obtained goats and cows. A deserving few had support for converting their thatched roof to a tiled roof. They also received totally free medical aid for their immediate families. In spite of these efforts they were never satisfied.

Having witnessed this problem repeatedly, RUHSA started promoting through its training and consultancy programmes that projects planning to use volunteers must keep them without a regular monthly financial payment.

Alternately depending on the duration, capital investments are recommended periodically so that these can provide them additional income. These could be a goat, a cow or a small business. Those that have followed RUHSA's advice have overcome the problem faced by RUHSA.

Buildings

Sustainability takes on a new meaning when an organization puts in roots by putting permanent buildings. As the buildings increase the roots go deeper and uprooting becomes impossible. People interested in RUHSA watched with concern as one building after another started coming up. First it was a 30 bed health centre, later expanded to 60 beds. In the peripheral service units there are eleven Centres for Health Education and Welfare owned by RUHSA with seven others rented. Starting from 7 new houses it went up to 33 houses. Training required hostels (Total capacity of approximately 150 beds including twin sharing and dormitory), classrooms, library and offices. A spacious dining hall with an attached kitchen. Vocational training required its own set of classrooms for about 200-250 students at a time. Poultry had an unusual large shed. Making animal feeds required a big godown along with its own office.

Health Centre of RUHSA

Very early in the history of RUHSA it was recognized that such an infra structure based programme can and should never be replicated in totality. Unlike health care delivery, which demands regular technical inputs of certain standards, development programmes are time bound. Using trained personnel with minimum certified skills, once the community is developed in a particular area, its continuity is taken care of by the community. There is no long term need for personnel and buildings for these activities except in temporary settings. Alternately, the buildings could have been phased in such a way that as one activity was handed over to the community, another service could have been incorporated.

If only then RUHSA had the experience of the concepts of development and sustainability as of today, then there definitely could have been different focus on buildings. The poultry shed could have been smaller. RUHSA may never have started an animal feeds unit. Adjustments could have been made in the other areas as well. Experts who have visited RUHSA at different times have indicated the need for such an infrastructure based centre for every district, provided it is used in a regular manner by both the government and other organizations. Today the poultry shed has been converted into a simple rural auditorium. There are times when the demands on training are so much that the hostel space and classrooms are inadequate. The demands on health care are steadily increasing and can easily utilize any vacant building.

Vehicles

Mobility was an essential factor needed for promoting development. This becomes all the more relevant as night work becomes a necessity. Mobility was also needed to promote health care in the peripheral villages Due to limited housing at the early stages busing staff from town daily and taking them back became a necessity. It was also realized from the experience of others, that professionals would reside and work in rural areas, if proper support is provided for a reasonably good education of their children. Therefore busing children into town daily and back became necessary. The health care provided at RUHSA was only up to the secondary health care level. Therefore in emergency situations patients had to be transferred to the tertiary level hospitals needing vehicles. Finally as training increased and with the community being considered as field study area the demand on vehicles further increased. Even today these same need for vehicle support continues.

At the start of the programme, there were four types of vehicles, the bicycle, the motorcycle , the auto rickshaw, and the four wheelers. The bicycles were provided to the Rural Community Officers. After many years of hard work, they have now moved up to the use of motorcycles for at least night work. With less funding available for the purchase of vehicles, increasing efficiency of operation is attempted.

The auto rickshaw was probably introduced by RUHSA long before its time. Part of the problem then was that there were no tar roads as today. Therefore during rainy season ditches would form along the roads. The wheel base of an auto rickshaw being very short, it many times forced staff to carry the auto across such barriers. With repeated staff complaints this mode of transport was taken out of service. Today with better roads there has been

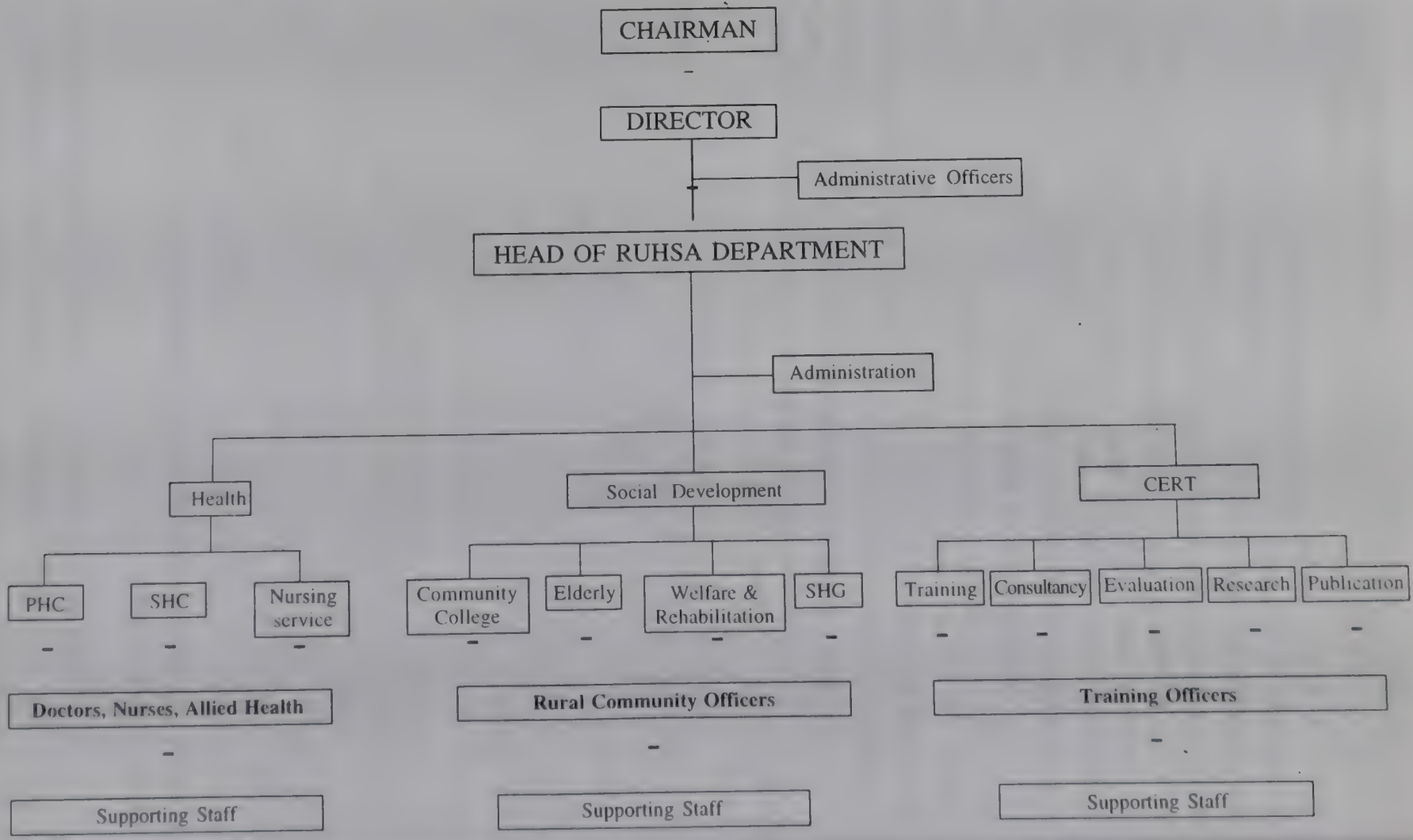
a sudden spurt in the number of auto rickshaws, competing with each other in cut-throat competition. What a change twenty five years have seen!

A better understanding between infrastructure development and sustainability is absolutely necessary. This is not to say that personnel, buildings, and vehicles are not necessary. It is quite possible that if this level of infrastructure was not provided then RUHSA itself might have been a failure not allowing this luxury of a critical appraisal. In fact if the present level of bus services were available then, the pressure on infrastructure might have been different. Assuming professionals would accept a crowded bus, if they have to wait for more than one and a half to two hours for a bus, then there is definite inefficient use of professional time. There is a need for a judicious balance between infrastructure and development. It may be useful to study and compare the infrastructure of similar larger NGOs. One experience is probably not enough to generalize for the rest. The factors that could help determine the infrastructure needs could be based on area and population covered, long term goals and objectives, periodic evaluations if possible, range of services provided etc. Broad policy guidelines based on experience will help both project implementers as well as funding organizations.

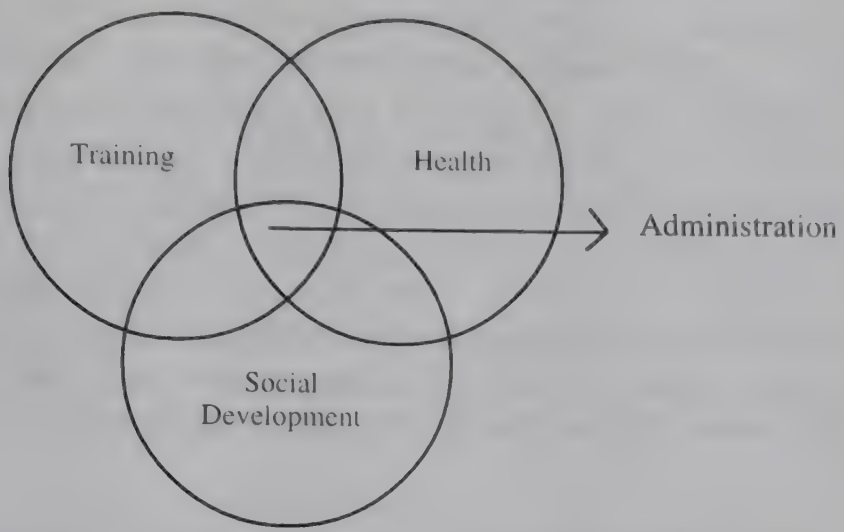
Two major areas could help in early decisions. The range and level of services provided could play major role in influencing this decision. For instance if health care is provided, then whether primary or secondary level could help in deciding the type of infrastructure needed. This could be further influenced by whether the services would be directly provided by the NGO or whether the government services would be strengthened. The next approach would be to phase in various activities. Providing adequate drinking water would be the first priority that has the maximum influence on health and the welfare of women. In an agrarian population agriculture and livestock inputs according to need would give the community the confidence to build on other areas. As next major steps, community organization especially using the approach of Self Help Groups for women backed by income generation programmes would not only contribute to effective development work but also keep the pressure on infrastructure at the minimum. The above would make balancing between staff housing either own or rented or even motivating the community to build good housing so that busing staff and demands for other vehicles would be easy.

The following two diagrams outline the structure and functioning of RUHSA. The first figure illustrates the structure as in any organogram. In the second diagram the same is shown with overlapping functions.

ORGANOGRAM OF RUHSA



Functional Relationships of RUSHA's Units



Leadership

An elderly couple from New Zealand came to RUHSA to spend their Christmas weekend. There was very few staff to take care of them. Knowing the limited external inputs received in the area of management the visitors were requested to go through the programme and to give their advice at the end of their visit. They were candid in their assessment and gave this feed back. "Everything in the organization is different from what is taught in textbooks. We have seen a successful programme in operation. So do not make any management changes".

Part of the reason for this type of leadership was intentional and not accidental. One needs to understand the background of leadership characteristics of both who have led RUHSA. Daleep by nature was a charismatic leader. That one word implies a lot about his style of leadership. To the outside world RUHSA was only Daleep. This was best illustrated a few weeks after Daleep had handed over his charge. The Director of CMC was concerned as to what these poor staff of RUHSA would do in Daleep's absence. So he came one day to quickly initegrate the process of administration of RUHSA with that of CMC. Unfortunately on that particular day a truck broke down about 300 metres away from RUHSA and he could not drive into the campus. Anxiety was writ large on his face as he walked into the office. He was duly welcomed to RUHSA and all courtesy due to the Director was shown to him.

After spending some time confidentially all the senior staff were invited to the meeting. The activities carried out by each individual were shared. After two hours when he got up from the meeting to leave, the broad smile on

his face clearly indicated that RUHSA had won his confidence and that he was leaving with the assurance that there was no divided loyality between the past and the present. However, his parting sentence was, " We will come back as a team of all the Administrative Officers and will take over the different responsbilities". Sure enough two weeks later they did come. As a team the entire activities of RUHSA were presented. The financial management was described in great detail. It was then that they realized that Daleep had delegated all the responsibilities and RUHSA staff were managing to the satisfaction of the institutional procedures. They were satisfied that there were sufficient checks and balances in administration especially in handling money. The team left without taking over the reins of administration but formed a committee that would oversee the transition by the end of the financial year seven months away.

Growing rapidly in an era where autonomy was the basis and then integrating that organization into an 85 year old institution was not easy. Taking over from a charismatic and dynamic leader was even more difficult. The transition was made easier by the encouraging words of Dr. Ashok Sahni, a Behaviour Scientist from Bangalore. He said, " The leadership required for growth is entirely different from the leadership required for maintenance". He further stated, "I have no doubt you will be able to carry on from where Daleep left". Those were assuring words of encouragement that were tremendously helpful in the transition.

A slight digression to know the broad difference in the leadership styles between Daleep and his successor would be of help to some going through similar pathway. Not only was Daleep charismatic in style, he was charismatic in appearance as well. He was many inches taller, heavier and fairer than his successor. He had the gift of the gab and he could convince just about anyone with his convincing talk. This is best illustrated by the representative of a funding agency who behaved with him in a high-handed manner. Daleep just told him, "Please leave RUHSA immediately. I do not want your money". Not only did he apologize for his behaviour but stayed long enough to give a considerable amount of money.

One of the problems his successor faced soon after Daleep left, was the comparisons made with him. Integration as a department meant that there was an obvious diminution of absolute power. However, over time staff realized that every Head of Department had certain level of power which could not be ignored. However, it was not the power that showed up the differences. Each morning Daleep would close the door and finish the essential day's work

before getting into the routine work. When the Director of CMC was asked of this practice, he said, "Abel keep the office door open always. The staff should feel always welcome to meet you". Without saying which practice is right there is no denying the fact that his productivity was always very high.

There are two other qualities that separated the two. This relates to speaking and writing. Daleep could be called the 'three point leader'. He always broke down any complicated topic into three points and articulated it with choice words that aptly described whatever he wanted to convey. God endowed his successor with an intense desire for writing so that he could facilitate the RUHSA team to write. While in principle the written word is more sustainable, Daleep by his speaking brought about so much quick change that the changes themselves were sustainable needing no written back up.

The final difference relates to decision-making process. Being charismatic, people look up to such leaders. Decision making is quick and people tend to instantly carry out whatever is instructed or ordered to be done. Sometimes there is fear and awe and work gets done even though some times it may be superficial as filling the first and last pages of a survey schedule leaving the inside pages blank. Like the "children of the new forest" when Daleep left, participatory decision-making became the norm. Development workers swear by participatory approaches, but oh, how slow decision making is! However when the decision is made together the implementation is easier and very often long lasting. In general people like participatory decision-making but in practice one tends to follow the charismatic leader.

Periodically the staff go through an exercise in identifying the Strengths, Weaknesses, Opportunities and Threats (SWOT) of RUHSA. While the strengths as identified are not ignored, more time and effort is spent on the weaknesses and threats as these if not addressed in time, could lead to problems. Addressing the negative openly without being defensive has been an helpful exercise. More recently the focus has shifted to the individual from the organization. Being open about one another's weaknesses and knowing them has begun to contribute to better teamwork. SWOT analysis helps the organization to focus on its work.

In generating the list for each of the SWOT areas and in the subsequent ranking of these listed under each head, the Nominal Group Technique or otherwise called the Delbeq technique is used for participatory planning processes. This is a very powerful technique. One of its greatest strengths is that it forces every one to participate in the planning process by generating ideas. It also ensures that the group is not swayed by the forceful talk of one or two dominating individuals.

The Transition

The transition from an autonomous institution to a department was an entirely unrewarding and difficult process. Probably industry is used to this type of task routinely. Providing equivalent designations and salary in the new set up was probably the hardest part. Not every one was satisfied and some left RUHSA at this stage. To motivate those who decided to stay back was even harder. A development organization cannot handle staff as industry would. Fortunately, RUHSA had persons like Dr. Robert Carman and Mr. K.A. Jacob, especially the latter who painstakingly went through each of the 222 names and made a decision on each one of them. When the final list was put up many felt satisfied but with many more rounds with those dissatisfied, finally the process was completed two years after integration was started.

Carrying on a festering staff problem of this nature for two years took its toll on the programme activities. As the activities were looked anew, the evaluation report by now three years old became a reference point to lay emphasis in those identified as priority areas. It was then that Dr. Benjamin Pulimood, the then Director suggested that RUHSA evolve an ethos of its own as Bagayam and the Hospital Campuses of the institution had evolved. And so with a new postal address in the postal directory, this was to be the RUHSA Campus of the Christian Medical College, Vellore.

One of the earliest tasks carried out in the RUHSA Campus was to provide support to staff children for their education. This meant that education had to be arranged at Vellore town and each day transport had to be arranged to both drop and pick up children. Co-ordinating between various schools was a difficult task but had to be completed. To ensure objectivity usually a staff member who did not have children of his own was the co-ordinator. One particular incident indicates how tense situations could become. It was the day Mrs. Indira Gandhi was assassinated. The children had left for school. By 11 a.m. message was received that she was dead. The children were in a school 35 Kms away and had to traverse the whole town to get back. After due thought an ambulance with an "injured" person with a head bandage coloured red with mercurochrome was sent. The children were picked up and the vehicle returned through the bye lanes of villages completely keeping off the main roads.

Working in a rural area entertainment is the other weak area. While those who enjoyed reading had enough materials in the library, others had to do with only what was otherwise possible. Daleep was kind enough to contribute part of his BC Roy award to purchase a colour Television. But then there were

no choice of channels. Today most staff have their own TVs in their homes, and so take care of their own entertainment.

One unusual accomplishment as a group was enabling staff to upgrade their household equipments. Working under the forum of a staff welfare club, a good deal was negotiated with a financial company. Then staff members identified the equipment needed which ranged from television, fridge, wet grinder to radio etc. Within a three year period, all the loans were paid back and the standard of living among staff increased.

Although the institution is basically Christian, there is sufficient secular outlook in its working set up. Over time by mutual understanding, each year Independence Day on August 15th was declared as the department picnic day. January 26th, the Republic Day has been made a department retreat day. This keeps both the religious and not so religious sections of the staff happy and satisfied.

CMC RUHSA Society (ASHUR)

This was a sister concern of RUHSA established in 1985. As RUHSA began to get increasingly involved in development, producing a variety of items and their sale became a necessity. It was identified on review of CMC's memorandum and bylaws that trade was outside its purview. Therefore these activities were hived off as the CMC - RUHSA Society so as to give freedom of growth in this area.

Initially the name was linked to CMC to maintain the historical relationship. The Head of RUHSA was the ex-officio President of the new Society, while the Treasurer was nominated by the Treasurer of CMC. Over time when all activities got stabilised and independence was established even the remaining linkages were cut. The President was not Ex-Officio Head of RUHSA, nor was the Treasurer appointed by CMC. The members of the Society acted on their individual capacity with representatives from the community. Therefore in 1996 CMC RUHSA Society was officially renamed as Association for Self Help Upliftment and Regeneration (ASHUR). This name was chosen so that its acronym would be a mirror image of RUHSA-ASHUR.

Section II

COMMUNITY BASED SERVICES

Each of the many activities caried out at the community are described in this section. Each chapter attempts to highlight the experiences in each area of work. The emphasis is on how RUHSA went about the work even as what was achieved is not ignored. An attempt has been made to keep data as little as possible selecting only essential data from the large volume of data available. Every activity and programme is not included but only those that could contribute to a better understanding of sustainability. The lessons learnt are described within the setting in which learning took place. Achievement in various area are described briefly with consondation of significant data at theend. This section closes with the award and recognition for the well carried out.

5. HEALTH CARE DELIVERY

Health care activities were the most clearly defined and focused among all of RUHSA's programmes. The first reason is that RUHSA is part of a hospital which is as big as CMCH. The other reason is that a medical doctor from CMC led the team. But even more importantly, the level of development of health planning was far greater than in development areas. Leading professionals in the field of health were involved in influencing Dr. Daleep Mukarji as he went through his education in London. It is no exaggeration to say that RUHSA was application of the Thesis he had prepared as part of his postgraduate studies. One of the key reasons for the success of RUHSA has been the achievement in the field of health. Therefore the underlying basis of this success is initially presented.

TEAM Approach

This was one major repeatedly emphasized approach to the health work. The basic premise in this was that health problems were not just medical problems that doctors and nurses could manage as specific disease conditions. Improving the health status of the community required a team of professionals working as together. TEAM was expanded to involve people from the backgrounds of Training, Education, Agriculture and Medicine. It was no accident that the order was as given in TEAM. There was enough evidence that Medical professionals had to play low profile even though they may be team leaders. There was enough evidence becoming available then that even though the government had expected the medical personnel to provide a major managerial role they had miserably failed. There was also enough evidence become available then that even though the government had expected the medical personnel to provide a major managerial role they had miserably failed. Focusing more on clinical work. Therefore what TEAM tried to emphasize was that there would be different situations where nurses and other non-medical personnel may become team leaders and doctors should be prepared to work under their leadership as a team member. Accepting this approach led to collegiality among inter disciplinary team of workers at RUHSA. Doctors have found it difficult then and continue to find it difficult even now to work under non-medical personnel and learn from them. Probably that is why it was termed as TEAM and not MATE.

SMART Objectives

It may be easy to state that SMART (Simple, Measureable, Achievable, Result oriented and Time bound) objectives are the accepted norm in health and development programmes today. However twenty five years ago with very few big Non Governmental Organizations these were not as commonly used as today. One of the key reasons for the success was the clarity in the objectives especially in the area of health. If one looks back at the original programme proposals, the clearly written health objectives stand apart from the development objectives. The targets in health were clear whereas in development only the directions were clear. Therefore having objectives written in a SMART manner helped all health staff to know what was expected and the whole team was able to move in the right direction. The following chart shows the very specific nature of the health objectives.

Specific Health Objectives or Specific Objectives of Health

1. Decrease Infant Mortality Rate:

a. From the present rural rate of 116 per 1,000 by 25% in the first three years i.e 85 per 1,000 and by 50% in 6 years i.e., 58 per 1,000

b. Decrease Age Specific Mortality Rates of children 1-4 years. From the existing rural level of 23.3 per 1,000 by 25% in the first three years to 17 per 1,000 and by 50% in six years to 12.5 per 1,000.

2. Decrease in Birth Rates and increase in Birth Intervals:

a. Present birth rate is 38 per 1,000. In three years to bring this down to 30 per 1,000, in six years to 25 per 1,000

b. Present gap between siblings (Avg.) is 1 ½ years: to increase this to 2 ½ years in the 6 years.

c. Increase acceptance of permanent methods of Family Planning in the population from the present 10% to 25% in three years. (Rates are acceptors per 100 eligible couples)

d. Increase the acceptance of temporary methods of Family Planning (2% now) to 15% of eligible couples in three years.

3. Improve the immunization status of the children:

a. 100% smallpox vaccine coverage by first birthday to all children by 3rd year of service onwards. This is to be stopped if found unnecessary by the smallpox eradication programme.

b. 50% coverage by 3rd year with DPT : 2 doses in 1st year of life.
90% by 6th year

c. 60% coverage in 3rd year with BCG in 1st year of life. 100% by 6th year

Definitions

The activities to be carried out by the staff in the health area were very clearly defined. These definitions were prominently written down. The initial team of staff had to know these by-heart and had to be prepared to answer these in any review or planning meeting. Therefore at every level these definitions were followed without any deviation. The two common areas repeatedly emphasized were what registration and the meaning of antenatal care meant. Registration meant writing the name in the antenatal register, giving a unique number, and providing an appropriate mother retained card to the mother. All these steps must be followed for each registration. Similarly antenatal care meant, at least three visits by the pregnant woman, checking weight, measuring blood pressure, testing urine for albumin and sugar, giving 2 doses of tetanus toxoid injections and distributing 30 iron and folic acid tablets each month and providing appropriate health education. These definitions were not only applied but also regularly reviewed to see if they were applied correctly ensuring sustained high quality of work.

Target Groups

To ensure that the services are provided in a focused manner within the overall K.V.Kuppam community, certain sections of the populations were identified as target populations.

Mother and child have formed the most important group receiving RUHSA's health services

Later on this word was considered inappropriate as it related to human populations. More than the use of the word, it is the principle involved that is important which needs to be adopted even today. Some people need more services than others. Alternately, the inputs provided to some selected categories of individuals provide more efficient and quicker responses. And finally, with limited resources it maybe better to focus the services to few selected categories even as others receive overall benefits. Based on these, while the children, women, poor, and educated unemployed youth formed the target groups in RUHSA in the health area, the first two categories received emphasis.

Priority Service XYZ

Even identifying target groups were not considered adequate. They were further prioritized using XYZ classification used in management. X had the highest priority with Z having the least. For example a mother with the second delivery opting to have a tubectomy operation made that delivery X priority as any complication could make her change her mind or even create problems within the family. Any pregnancy with a high risk would come under the X classification. The entire list of potential X categories was identified so that decisions could be made quickly at the time of contact with the patient.

Since one of the criteria to be included in the X category was tubectomy as permanent method of family planning, it was alright when the number of accepters were low. When the numbers increased including those from the higher socio-economic groups, it diluted the process and it gradually went out of use.

Planning Training and Review (PTR)

This was a regular weekly feature of RUHSA. Every Friday, the whole day was kept aside for review. Initially all programme staff participated. Gradually health and training staff stopped as their own work increased. Every activity was reviewed including areas of health. As is common, this activity had its importance as long as the Programme Director participated. As work load increased and there were other demands on his time the frequency decreased and later when this function was delegated, the PTR became routine and lost much of its original meaning. However the Planning Training and Review was an important process in the development of RUHSA as this was the forum through which continuous planning occurred and the necessary training was facilitated based on the feedback given.

Community Participation

Community participation was an accepted principle of the programme. However it was realized that health was not the priority of the people and that community participation was more readily forthcoming for economic programmes than for health. In fact culture and traditions were so strong, soon it was assumed that however committed the team might be, the community will take its own time to accept the modern medical care that was provided. An incident occurred that modified the thinking process on this.

RUHSA operated a number of mobile clinics in the interior villages of K.V.Kuppam block. While the response was reasonably acceptable in most villages, one village showed poor response. The clinic was conducted each

Monday morning and hardly anyone attended the clinics. There were days when more staff attended the clinic instead of patients. It was well known that this village was famous for traditional medicine. People from far away places would come for the herbal medicines. Having given what it was thought was adequate time, it was decided to close the clinic and move to another village. The last clinic of that year fell on Christmas holiday. The clinic did not function. The plan was to discontinue from the following week. On Tuesday morning one man brought his child to the main health centre approximately 7 Kms. from this village. His first statement was, "Doctor, I waited for you in the clinic yesterday for a long time. Since no one came I have come here." He could have been yelled at. Instead, having seated him comfortably, he was asked "Please tell, why is it that people in your village do not attend the clinic. Since people are interested in herbal medicines it has been decided to stop the clinic". Then he replied, "Doctor, people are not coming on Mondays because the weekly market falls on the same day and not because of herbal medicines. For the people the market is more important than the clinic. If you change the day people will come." After a short discussion it was mutually agreed that Thursdays would be the clinic in that village. Sure enough, people came in large numbers subsequently. Ultimately this is community participation. The opinion of the people was not initially sought in setting the clinics. The schedule was prepared in the office without any community participation. This is probably the simplest experience in community participation but illustrates its importance very effectively.

Primary Health Care

RUHSA starts its Primary Health Care work from the village level. There are sixteen peripheral clinics operating throughout K.V.Kuppam block each week.

Dr. Daniel Dharmaraj examining a child in the clinic

Each mobile team has a doctor, a nurse with further support from the Rural Community Officer, the Health Aide and the Family Care Volunteers belonging to the area. The focus of this programme continues to be antenatal care and childhood immunizations.

Secondary Health Care

This consists of a sixty bed health centre with facilities for an out patient service, supported by a simple but functional laboratory. The wards cater to delivery, tubectomy surgery, general surgery, paediatric care, general medical care and emergencies. Trained nurses are available for patient care. Specialists visit according to a fixed schedule in the areas of paediatrics, ophthalmology, orthopaedics, dermatology, leprosy, dental, gynaecology and ENT. Physiotherapy, nutrition and counselling services are also provided. The health centre is built in typical rural settings. The largest number of beneficiaries for the inpatient care are for tubectomies and safe deliveries.

Health Education

The need for health education has been realized for a long time. It is well known that while good medicines are available for treating patients with tuberculosis, patients' compliance has been poor because of a lack of awareness of the consequences of incomplete treatment. Even with good vaccines available, mothers were not immunizing their children. It was realized that these situations needed proper health education. However it was understood from experiences over time that special efforts must be made if health education is to be effective. While creating awareness is an important first step, modifying behaviour requires much greater efforts than just passing information. While health education in a clinic is good, there are weaknesses in the approach both in the learner and the provider, that if not planned effectively it could be a wasted exercise. Therefore considerable efforts were made in the field of behaviour modification.

Volunteers

Health volunteers played a key role in the success of the health work. There is a history behind their selection. The centre in Kavanur has been operating since the 1950s. Doctors and nurses would visit the villages nearby in a planned manner and provide antenatal care and immunization. In fact nursing students, supported by their faculty, would even provide home deliveries. In spite of such intensive efforts, the number of women coming for delivery to the centre and the number of mothers bringing their children for immunization was much less than desired. Discussions with leaders indicated the powerful influence the traditional birth attendants (TBAs) had over the community. So when the new programme was started, it was decided to involve them as allies in health care rather than as competitors. This helped break down prejudice and they were able to motivate mothers for institutional delivery and childhood immunization. In fact the medical professionals had changed so much that they were prepared to accept a home delivery if professionals provided adequate antenatal care and the home delivery was conducted by a trained TBA.

ıri Rajiv Gandhi, The Honourable Prime Minister of India during his visit to RUHSA in 1988 along with Dr.Benjamin Pulimood the Director of CMC and Dr.Rajaratnam Abel, the Head of RUHSA Department.

Dr.Joyce Ponnaiya, the Director of CMC declaring open the expanded delivery room and ward at RUHSA, Dr.Chacko Korula and Dr.Inbakumar Joseph look on. Ms.Mahalakshmi Family Care Volunteer and currently president of the Mahalir Malar Federation felicitates.

Having involved Family Care Volunteers as health volunteers, it did not solve matters at the community. The community was asking the volunteers as to why they were changing their message from earlier condemnation of modern medical care to actively promoting it now. The going was tough for the FCVs initially. Interesting events began to change the situation. In one village the tradition bound richer section of the community refused the immunization promoted by the FCVs whereas the poorer section accepted them with higher coverage. When the next bout of whooping cough epidemic came around the children from the richer families were all coughing while the children from the poorer families were healthy. The message was clear and subsequently the FCVs did not have a hard time convincing the mothers for better health care. Without any hesitation, the staff have openly stated that without the FCVs the achievements in health would not have been possible within a short time.

Role of Nurses

Nurses have played a significant role in the history of RUHSA. The Kavanur Campus which RUHSA inherited was completely managed by nurses. Miss Kathleen Norris from the faculty of Community Health Nuring started rural posting right from the first batch of B.Sc. nursing students. In addition to a doctor who was appointed for the Kavanur Rural Centre, (KRC) the chief anchor who helped the place develop was Mr. Walter, a male nurse. His wife also a midwife helped in conducting home deliveries. Kavanur was known for the domicliary midwifery training that nursing students received.

Mrs. Achyamma John (nee Thomas) was one of the students of the first batch of B.Sc. Nursing Students. She came as a student to KRC and later progressed to take over the Head of Community Health Nursing from Ms. Norris and later becoming the Dean of the College of Nursing. It was interesting to observe that her successor as Head of Community Health Nursing, Mrs. Chellarani Vijayakumar also be came the Dean College of Nursing. Therefore KRC initiality and RUHSA later have received the maximum support from the College of Nursing from the highest levels.

Kavanur was started for education of nursing students. It still continues till date but what is taught and how it is taught is entirely different from the bullock cart days. Today they come to learn principles of management and midwifery practice. M.Sc. students also continue to come for their thesis project work. They are introduced to the concepts of Primary and Secondary Health Care, as well as Community Organization and Development. Additionally the College of Nursing administers the nursing care to patients at RUHSA.

In RUHSA nurses have been provided greater role and responsibilities. Many of the health care functions are delegated to the nurses with minimum supervision from doctors when necessary. There are many occasions when nurses manage the mobile clinics. Based on experiences in other countries, nurses at one stage were trained to carry out tubectomy operations. Because of the lack of professional acceptance it was discontinued. Overall nurses in RUHSA are treated as any other professional and responsibilities are given aaccording to capability and interest at times even substituting for doctors in meetings representing as leaders from RUHSA.

Spill over benefits

While the population of K.V.Kuppam of over 1,10,000 is RUHSA's primary target population, the population from the villages surrounding this block have also utilized the services. These include deliveries, tubectomies, tuberculosis and some of the chronic diseases. Many patients use the out patient facility. as well.

Sustainability

Sustaining health care delivery is probably the most difficult. The major reasons are that unlike development, health involves a fairly rigid technical component which requires appropriate professional training with the necessary registration and licensing procedures. This is particularly true of giving injections. Another area is maintaining sterile techniques for surgery and injections which requires some centralized services. As levels of health care increase, only professionals can provide the required services.

However while people cannot take over health care delivery fully, they can pay for services. The economic development programmes can help them pay for services. As people start earning more money they are prepared to pay private practitioners after work than loose a day's work and come to the RUHSA health centre.

Some services can be subsidized by both NGOs and the Government medications and vaccines can be provided by the Government free. Priority services like family planning can continue to have costs reimbursed by the Government. RUHSA also provides free or subsidized care for the deserving poor as part of the institutions' larger programme of service to the poor.

However, based on RUHSA's experience, NGOs are encouraged now to create a demand for the Government health services rather than create a parallel structure. Today this is the most sustainable approach. To be successful,

capacity building of the Government staff and appropriate support from the government machinery is essential. Pro-active efforts at maintaining a smooth working relationship without being over critical of government workers' shortcomings are also helpful. However, it is not clear what changes would take place as globalization and privatization have their full impact.

Achievements in Health

1 **Elimination of poliomyelitis, whooping cough, measles, and neonatal tetanus from K.V.Kuppam block.** Poliomyelitis was effectively controlled long before the National Pulse Polio Programme. A generation of young mothers have grown who do not know what measles, whooping cough, poliomyelitis, and neonatal tetanus are. This is based on a sustained high rate of immunization coverage. Measles and whooping cough were brought under control very early in the growth phase, while polio could be eliminated only during the consolidation phase.

2 **Improvements in Crude Birth Rate (CBR), Crude Death Rate (CDR), Infant Mortality Rate (IMR), and Perinatal Mortality Rate (PNMR) have been consistent.** CBR decreased from 32/1000 to about 16/1000. The main method adopted by the community has been the tubectomy operations with most mothers having 2-3 children. CDR reduced from about 12 to about 8. IMR reduced from 116/1000 live births to the range of 40-50. Unfortunately it has been refractory around this level for many years. Perinatal mortality has shown only modest declines but has been sustained. The decreasing trend started during the growth phase itself. By the consolidation phase it stablised.

3 **Reduction in stunting, under weight, wasting** among under five year old children and reduction in **low birth weight** among new borns have also been observed. The initial declines in malnutrition were much steeper than at present. Protein Energy Malnutrition has almost vanished in a sustainable manner along with stunting reducing significantly. This is an ongoing process where an ideal state is yet to be reached.

4 A community based comprehensive HIV/AIDS programme was established. Confidential investigations are carried out after counselling. All children of HIV/AID parents are in local schools. The community has been educated to accept a patient with HIV/AIDS. Peer educators are trained and placed in the community to provide support to young people and preventing others from engaging in risky sexual behaviour. HIV diagnosis in the laboratory,

diagnosis of sputum positive tuberculosis, and reported cases of deaths either due to known or suspected case of AIDS have come down.

5 **Vitamin A deficiency** has steadily come down by the growth phase achieved primarily through a horticultural programme backed by nutrition education.

6 **Prevalence of anemia** among pregnant women was significantly reduced from 70.30% to 50.4% based on a strong programme of behaviour modification, iron supplementation and deworming.

7 Increased knowledge attitude and practices on various health topics including diarrhoea, six killer diseases, family Planning, ANC, HIV/AIDS, Anaemia, etc.

6. INITIATIVES FOR CHILDREN

One evening Pappamma, a Family Care Volunteer came rushing into RUHSA Campus. She had a hard time holding her breath as she said "Doctor, in my village a family was preparing to kill this girl child. Knowing the family I took this girl child and have handed her over to the nurses. Please take care of the child till I consult other relatives to take over this child".

When RUHSA had reasonably succeeded in eliminating severe form of protein energy malnutrition, it was a surprise when a father brought his malnourished child to the clinic under pressure from health workers. He said "The horoscopes tell me that if this child lives then I will die. Therefore I am allowing this child to die by starving the child". No amount of motivation would change his determination and the child died.

Being used to low birth weight infants with 1.25 kgs and above, the staff were surprised to have a child live weighing just 750 grams. There was a debate as to whether the neonate should be referred to the tertiary hospital or not. With the possibility of the child succumbing to hospital infection in the tertiary hospital, it was decided to allow the mother keep the baby and provide whatever little support that was possible in the small secondary health centre. Today the child is 8 years old and doing well.

Female infanticide, wanton neglect based on tradition, safe motherhood for under weight children, death due to neonatal tetanus and measles, physical handicap due to poliomyelitis were all childhood problems that had to be handled by RUHSA. Each problem was handled in a focused manner one at a time. The most significant achievements in RUHSA have been in the area of health and welfare of children. The activities carried out for children in a comprehensive manner have contributed to their health and nutrition.

Safe Motherhood

This terminology did not exist then. However achieving the above was the purpose of RUHSA's programme for the pregnant women. However, the dual benefit to both mother and the child is clearly recognized with effective antenatal and delivery care. Unlike immunization which can be organized as a mass programme, antenatal and delivery care is a daily ongoing process with care provided at different levels according to need and the availability of human resources.

Immunization

Immunization against 'Six killer diseases' was a common terminology among RUHSA staff. Recognizing the inadequate infrastructure and motivation in the Government health system, in a coordinated manner, immunization was allotted as one of RUHSA's 'share' along with antenatal care. The PHC staff had other responsibilities such as school health environment and sanitation and malaria control. In this way very early in the history of RUHSA, vaccine preventable diseases were brought under effective control. The same strategy may not be appropriate today. Empowering the community to demand for more services, simultaneously build the capacity of the Government health staff backed up with more effective monitoring so that they can provide better services, would be more appropriate. The pulse polio campaigns is one good example of how this can be done today.

The end result of the whole exercise was not only to reduce maternal morbidity and mortality but also to reduce perinatal mortality. With perinatal mortality rate relatively high, well planned efforts were needed to decrease the levels. Unlike vaccine preventable deaths which responds quickly to an immunization programme, the decrease in perinatal mortality takes a longer time. Building a referral programme from the community level to the tertiary level requires considerable efforts especially when carried out by a not for profit non government organization. Equity and subidised care are two areas which have no clear cut answers in relation to sustainability.

Training of Traditional Birth Attendants (TBAs)

When health professionals consider TBAs guilty of 'handling' pregnant women in delivery often 'badly' or 'very badly', it is no surprise that they find it difficult to train them and work with them as partners. Therefore, when as part of the International year of the child in 1979, RUHSA proposed to train all untrained TBAs in the area, it was readily accepted by UNICEF. Since, our focus was on clean delivery to avoid neonatal tetanus and referral of cases that should not be handled by TBAs the programme was only 5 days duration. However, the process of integration of TBAs with the health system is not total even today. While professionals who have worked in a community setting find it easy to accept, young professionals coming out fresh from teaching institutions take a longer time to accept this as yet.

Growth Monitoring

Every child that came to the clinic was weighed before services were provided except when there were large clinic crowds. While weighing children regularly was a hallmark of RUHSA's health care delivery. Traditional beliefs

against weighing kept many mothers from weighing their children. Alternative to weighing a practice such as tying of waist string was considered. Therefore while providing all services such as family planning, immunization, primary health care, nutrition education, nutrition assessment of representative sample children from the community formed the main inputs for nutrition. For purposes of comparison control groups of children were also used whenever possible.

Having experienced considerable difficulties in carrying out growth monitoring through health workers, community based growth monitoring has been considered and appears in principle to be ideal. When mothers own growth monitoring at the community level, they are likely to carry out this activity in a manner acceptable to the community. However, growth monitoring has to be carried out in an environment where all the health and nutritional needs are provided.

There are emerging indications that in the long run growth monitoring using height as an indicator is also likely to be useful as mothers can compare the heights of different children without any measuring equipments. The other useful feature of height is that unlike weight, a height once attained does not decrease.

Pre school and parenting

While for many years RUHSA focused on the under 2 year old children, later as their problems were adequately handled children in the age group 3 to 5 years received emphasis. Starting with one Pre-school centre as a model, based on initial experiences these were extended to four other centres. Greater role and responsibility were given to the community. The infrastructure, play materials and training of teachers are provided by RUHSA in addition to guidance through supervision. The community is expected to make a monthly contribution to the teacher as well as providing food. A committee consisting of 5 women from the village oversee the

Ms. Anjana Mangalagiri from UNICEF addressing the conference on sustainable early child care and development at RUHSA

functioning of the centre for some time. With the formation of SHGs of women they have now taken over this role.

In 2001, a UNICEF funded parenting project was implemented in remote panchayats of the block serving a population of about 20,000. Right from the beginning this programme was implemented through the Self Help Groups. This started with training of Animators at RUHSA followed by training of members who educated the community. Initially RUHSA provided street play as input. Later, the groups themselves organized special programmes in the community.

The focus of the parenting project was promoting psycho motor development of the child through stimulation activities. Simultaneously proper nutrition also was emphasized for physical development. Emphasis was placed on the need for the father and other relatives to be involved in parenting. Having built the capacity of SHG members it is envisaged that this programme will be sustainable.

Tuberculosis

This is a programme working as part of the National Tuberculosis Programme and operates the Enhanced National Tuberculosis Control Programme. The medicines are received from the Government Hospital and are supplied free of cost according to the guidelines provided from time to time. Over the years there has been a steady decline in the number of patients diagnosed and treated. While adult tuberculosis patients were seen in large numbers, the earliest response was among children as tuberculosis meningitis and lymphadenitis were eliminated very quickly.

Physical Rehabilitation

Again working closely with the orthopaedics department and the Government Rehabilitation Officer differentially abled individuals are taken care of. The government has initiated a new Rehabilitation Counselling Centre to make rehabilitation services closer to the people needing the services. Camps are being conducted along with government doctors so that the required documentation for government support is provided without much hassle and cost. Children were the largest beneficiaries.

Female Infanticide

A mother of two children said, "I turned the other way when my mother in law killed my daughter. With three of my sisters having come back from their husbands for giving birth to girl children I did not want to face the

same story". When a news reporter went to a village to study about female infanticide, a pregnant women told him pointing to her abdomen, "If this is a female child, I will kill her".

With such strong traditional practices restricted to one or two ethnic groups, efforts at changing this practice has not received the same level of success as other practices have been. Recent efforts at using street play as a traditional media at bring about behaviour change is beginning to have the desired result. When the changes have been attempted through the medium of women's Self Help Groups, the community appears to be responding. Women have started saying, "We know today that only our daughters will take care of us in our old age".

Programme for Adolescents

Earlier experience with the Special Nutrition Education Programme had unmistakably led us to the conclusion that for effective improvements in the nutritional status of children the most sustainable approach would be the education of adolescent girls in the class room setting. At that time funding an adoloscent girls programme was not the priority. With the advent of HIV/AIDS and with the realization that a large number of young people were becoming victims to HIV/AIDS, and that very often innocent and ignorant adolescent girls became victims unwittingly, funding programmes for adoloscent girls became important.

With funding available for a new programme for adoloscent girls, over a four year period, special activities were carried out. Although HIV/AIDS was one of the reasons, the actual programme took a balanced approach. Since RUHSA had very little experience in this area, and as there was no assurance that parents would allow their adoloscent girls to attend this programme, the initial steps were taken cautiously.

The first major programme was a five day residential camp for adoloscent girls at the RUHSA Campus. It was decided that this programme would be a fun-learning experience. There were plenty of games, competitions and contests. Good food was provided every day. There was a full day picnic into Chennai city 150 Kms away with a unique visit to the sea beach.

Interspersed in between all these opportunities for fun, unobtrusively sex education was provided, including knowing their body, menstruation, its hygiene, pregnancy, child birth and care of children. Concepts of family planning

were also covered. Nutrition was adequately covered. HIV/AIDS, its cause, means of spread including how it does not spread and methods of prevention were fully covered.

Living and working in a rural area which is tradition bound, abstinence before marriage and faithfulness within marriage were emphasized. Condom use was not promoted. Sexuality was handled openly without being vague.

After gaining experience and confidence from the first few programmes, very gradually social areas were covered. These included providing assertiveness and negotiating skills. Some of the important social evils like dowry, and female infanticide widely prevalent in their area were openly discussed. They were encouraged to take a correct stand. The importance of education for girls was emphasized.

Having organized a number of five day camps it was realized that this approach was not sustainable in the long run. Therefore it was modified so that instead of bringing the girls to the RUHSA Campus, programmes were organized in the village schools itself. Instead of five days it was reduced to three days. The essential areas were retained reducing the games. This modification did mean compromising certain aspects, but sexuality and sexual hygiene were retained.

Even this modified programme was possible only because funding was available. To be sustainable, even further modification was necessary. In its final format the programme for the adolescents is an annual school based activity at the beginning of each year. At present both boys and girls are taken through this programme. It is a one day programme. It is anticipated that if for 9th and 10th classes this process would be continued for at least for 8 to 10 years so that there is sufficiently large number of sensitized youth who can handle sex and sexuality in an objective manner this process would be sustainable by itself.

7. RURAL COMMUNITY DEVELOPMENT

Social development was one of the important development approaches besides economic development that was promoted by RUHSA. In principle social development meant community organization, community participation, adult education and school education, programmes for the poorest, Self Help Groups and micro credit and programme of economic development. The first three concepts are important in their own right and deserve to be explained in greater detail as these were some of the earliest inputs at RUHSA.

Community Organization

As part of social development, Community Organization (CO) was the most intensive and earliest approach to development. In the late seventies very few had gone through this path before. Commitment to hard work was the guiding force and not experience. Therefore RUHSA started with the standard approaches to COs. These included Mahila Mandals, Youth Clubs and Young Farmers Clubs. Unique to RUHSA was the Village Advisory Committees (VAC) which was the overall co-ordinating organization in the community.

Organizing the community was the first task Rural Community Organizers later designated as Officers (RCO) were entrusted with. Based on the villages and the various groups of individuals in the community different RCOs were able to accomplish this task at varying speeds. Those who were delayed or had difficulty in organizing the community found themselves to be the underdogs in RUHSA. Therefore to keep pace with others, groups were organized even before they were ready to take on this role. The first mistake in community organization was thus made which had serious ramifications for many years.

Therefore what was observed was that in different villages, different groups took on leading roles, with hardly any village having all groups working at optimum potential. These were termed as collective models of leadership. Gradually over time the weaker groups started disintegrating. Most villages had the Village Advisory Committees functioning. In some, additionally at least one village community organization functioned effectively.

As the reasons for the failure of the COs were analyzed one particular factor stood out. Due to the novelty of meeting together many COs appeared to have the spark to start off. However as time passed by and as nothing appeared to come out as a result of these meetings, they lost their meaning, people started dropping out of meetings and the groups died naturally.

This led to the formation of cooperatives built around common economic interests. The weavers cooperative and milk producers cooperatives were two of the earliest ones to have been organized. The weavers cooperative and some of the many milk cooperatives are still functioning. While youth clubs lasted for some time based on interested leaders, carrying out of youth friendly activities and community service, over time when the youth leaders became older, married and settled down in some vocation there were no younger leaders and they too because defunt. The Mahila Mandals were the worst as most did not take off, probably due to the responsibilities women had at home. Only after two decades with the formation of women's Self Help Groups has women's community organization lifted up its head in RUHSA. The reason for the resurgence could be due to the savings and credit involved as well as the excellent periodic training provided to the women.

A woman weaver, a member of the weavers' cooperative in K.V.Kuppam Village

Community Participation

Ultimately community organization was a prelude to elicting community participation. In the early days the concept of community participation was poorly understood. The accepted norms for community participation were contributing space on land for public service, or purposes and providing voluntary services. The highest form of community participation was to be on the committees of the NGOs management .

Only time and experience made RUHSA realize the utter futility of this form of participation. Many who donated land and buildings expected free service in return. There was one particular rich farmer who constantly rubbed in the fact that he had donated the clinic land . Since providing free medicines were not costly it was provided without any charges. However when his first daughter had a delivery which resulted in caesarean section, he refused to pay any money. He demanded it as a right. He went away literally with out paying anything for a relatively costly service. Unfortunately for

him, his daughter's sutures gave way and he had to spend considerable money for resuturing. It was not surprising therefore when he did not bring his second daughter for delivery at all.

It was constantly highlighted that even sitting on the boards and committees of the NGOs was nothing worthwhile. It looked big but was toothless. In 1985 the CMC RUHSA Society later named as ASHUR organized a governing council of 9 RUHSA staff in their personal capacity and 6 community representatives. Although 40% community representation, the actual control was with ASHUR. The general body met only once each year to receive the annual report and audited statements, and appoint the auditor.

It was still worse in the Executive Committee. There was only one representative from the community in the Executive as against 7 from the organization. In both the fora these representatives were nominated. Therefore only those who could work with the NGO were picked. The presence of the community representative did not mean anything to the community as none of their vital interests were adversely affected either by their proper or improper functioning. While to the external world this appeared to be community participation, it was not so in the real setting.

Very early RUHSA recognized that being on the board or general body of an NGO is not necessarily true participation. Community Participation in its truest sense was to participate in decision making that affected people's personal lives.

Having accepted this clear understanding RUHSA went about organizing a large number of poultry farmers in the community, and a Poultry Growers Federation was organized. The President, Secretary and Office bearers were all from the community. RUHSA had only one vote in Executive Committee. Roles had now been reversed and RUHSA was in the minority. However because of RUHSA's economic clout, the other members were always beholden to RUHSA.

It was clear that some of the members were not happy with this arrangement. Although RUHSA was in the minority of one, the community was obliged to do whatever RUHSA wished. Therefore when there was a conflict of interest between the community and RUHSA, experienced as they were, they wrote the memorandum of a new society, registered it without RUHSA's knowledge and made sure RUHSA did not have even that one vote by completely keeping RUHSA out of their own new society. How happy RUHSA was! They were praised to the skies. Probably they expected a legal

battle. Unfortunately instead of growing on their own, they fell flat on their face and never rose again.

Again as in community organization only the formation of SHG ensured effective community participation. This time around they had been empowered to take on greater responsibility. Their participation was primarily to protect their own savings. Their participation was for their own economic growth. With more money and influence they were able to take on more social action programmes and their stature increased further. Many felt confident enough to stand in the village election and a significant number of them won. Now they had power as well. Why would they not participate in decision making?

Education and literacy

It is well documented today especially with the experiences of Kerala State in India and Sri Lanka, that education and literacy are important essentials of development. Recognizing this UNICEF has created the slogan, "Primary education every child's right". However providing education and making people literate is not an easy as anticipated.

Unfortunately very often when a major problem is faced an attempt is made to find short cut solutions or quick fixes. While in some situations they tend to work, many problems just do not have any short cut solutions. When attempted these end in failure and valuable time is lost in the process. In RUHSA's experience Adult Education was one such short cut intervention to overcome illiteracy that did not succeed. This is RUHSA's story.

In 1980-81 RUHSA started its Adult Education Programme (AEP) to overcome illiteracy. This was well planned and as a first attempt 30 AEP centres were started in K.V.Kuppam block. There was adequate emphasis in the capacity building of the staff involved and the animators used for education. Literacy including functional literacy and numerary were emphasized. It was a joy to hear feed back about people who had been illiterate till recently, reading the destination boards on buses, counting correct change for bus fare etc.

This initial success was immediately followed by a continuing education programme. As part of this Tamil newspapers were made available to AEP Centres. Additional books on continuing education were also made available. To further support this a mobile library was made available for all the AEP Centres where books were rotated from one centre to another.

Dr. Daleep Mukarji leading His Excellency the Governor of Tamilnadu,
Shri Sadiq Ali and Mr.Narayanan the District Collector, Vellore,
to the exhibition stalls on RUHSA Day 1983.

Dr. T. Samraj presenting a memento to the Honourable Minister for PWD
Mr.Duraimurugan during the function in August 2000
to distribute various benefits to SHG members.

Mr.Rajaram IAS, Executive Director of Tamil Nadu Women's Development
Corporation addressing the Block Level Coordination Committee at RUHSA.

After a short lull in the programme during the major reorganization that took place, with well trained personnel both at the staff level and among animators a major push was made for adult education. The educational materials were well prepared and distributed on time, the programme was well monitored and proper end of year evaluations were adequately carried out. No stone was left unturned in making this a success.

The feed back from all the processes indicated that there were many hurdles in providing adult education. Not all adult learners came regularly enough to have a meaningful impact. The animators providing the education were not consistent in their teaching. Even with the best efforts the results were not satisfying. This led RUHSA staff to reflect and review the programme.

Around this time two events occurred . One of the Secretaries from the Government of Tamil Nadu visited RUHSA. He was taken to a number of villages to show RUHSA's programmes. In one village he just walked into a primary school and went to the 5th Standard. He made one boy stand and read a Tamil passage. The boy was so dumb, he could not read a word. He asked another boy. He fumbled through some words. A girl stood up and she too struggled. The teacher was embarrassed and the Secretary was kind enough not to ask him any questions. The literacy level of a 5th Standard student in Tamil Nadu in the late eighties was nothing to boast about.

As part of RUHSA's training programme in the Diploma in Community Health Management course a survey was carried out on literacy levels. Various factors on literacy were studied. Of the many findings one that stood out was that a large population of those who had completed their adult education programme about 5 years earlier had relapsed into illiteracy again. Many among those who had completed their 5th Standard were illiterate and only those who had completed 8th Standard had sustainable literacy.

These two situations presented two sets of complementary findings. In the school very few who were going through a government school system on completing their 5th standard were literate. Many who finished adult literacy classes relapsed into illiteracy within 5 years. This appeared to be a viscious cycle and an alternate strategy was called for.

Therefore without discontinuing adult education it was decided to strengthen the existing school system so that children became literate in schools. The first step was to ensure that there were no drop outs before eighth standard. Beyond 9th standard teachers' capacity on difficult subjects like science and English were built up. Since RUHSA had staff with wide variety of

qualifications, intermittently but at key periods the staff took classes in areas where there were no teachers in some school. This was particularly a felt need in the teaching of mathematics.

At present to make education a sustainable process this is promoted by women's Self Help Groups in every village. They motivate all children to go to school. They also become members of Parent-Teacher Association and ensure that the schools provide the correct education. The literacy levels have gone up from 33.6% in 1978 to 60.5% in 1998 and is likely to go up further.

RURAL MARKETING

Very early RUHSA's programme of community development felt the need for rural marketing. When a new society was organized for economic and business development on of the key functionaries was a marketing promoter. Rural produce including broiler chicken were regularly marketed. Some of the items marketed were coconut stick brooms, paper envelopes, food products. However lack of training, sufficient follow up on quality control and inadequate marketing linkages led to failure initially. Probably the ultimate reason was the lack of ownership by the community.

Attempting to overcome the initial problem at present marketing is provided only for community owned products. The sales women are members of Self Help Groups and accountable to their own federation. Purchasing the raw materials and items for sale are made by the women themselves. Steps are being taken to provide adequate exposure and training for better quality production and effective marketing.

For rural and community development to be effective much more support to rural marketing is essential. Both NGOs and Government will have to go deeper into this including strategic planning processes. While support to exhibitions and allotting shops in Government shopping complexes are important approaches, there is a need for more training and consultancy for production and marketing currently. This is a weak area and concerted efforts are needed in this area for sustainable rural development.

8. ECONOMIC DEVELOPMENT AND CREDIT WORTHINESS

They were the exploited poor weavers who were looking for an opportunity to come out of the clutches of the master weavers. RUHSA's entry into the block was the right stimulus to initiate a process of their economic development. These weavers had been part of a co-operative unit, which had been earlier liquidated for poor performance. With RUHSA's help when the Co-operative Bank in Vellore and officials of the Handloom and Textiles Department agreed to support them, a new society was formed. However due to the fear of the problems of the first society, many were reluctant to join the new society. Initially, only 134 members of the original nearly 400 members joined. Gradually it increased to 360 members. When the master weaver who was exploiting these people came to know about the new programme, he came and threatened RUHSA staff. Recognizing his clout the weavers continued to use his services. However, as soon as they had an opportunity they broke away from the old master weaver and joined with another master weaver who was able to provide the service at lesser cost. Within a short while this weavers' society became the first big success story of RUHSA.

Their work output and income went up. They were linked up with an export unit and this enabled them to have assured employment for a long period of time. Along with this initial success, other co-operatives were promoted in the areas of milk collection, sheep, etc. This success story is an outcome of systematic planning and targeted inputs provided to the community which is described in greater detail.

Philosophically, economic development has always been an integral part of RUHSA. The approach originally envisaged was to promote programmes that would increase the availability of labour in the block and thus increase the income of the people. Three major areas were considered in economic development. These included vocational training, agro based and low capital rural industries, and self-employment schemes through bank credit and support from other organizations.

Baseline Survey

One of the steps expected of any good community health and development programme is to carry out an informative baseline survey. Therefore by the time the first development phase was coming to an end, a well-planned baseline survey was also completed. Considerable efforts went

into it to ensure the participation of banks and the Agriculture Finance Corporation (AFC) that was then responsible for the type of development work RUHSA was planning. AFC deputed an excellent external consultant in Mr. P.R. Michael.

The base line process was well executed with proper preparation of survey schedules, the necessary training for the data collectors, backed by proper review and monitoring process. The data was collected exhaustively except that towards the end, this was not completed in one village due to local political animosity towards RUHSA. Due scientific processes were followed in the analysis and a document entitled, the AFC-RUHSA Report, was prepared. Among the data collected the efforts made to collect income information was meticulous and has never been replicated even within RUHSA.

More than to identify only the prevailing status then, there was an effort at looking into the future by obtaining information from the respondents as to what they would like RUHSA to do to help them in their economic development. Probably based on the initial introduction of RUHSA's plans to the community, a surprisingly large number requested for support in dairy cattle. So, as soon as the team was ready to implement the programme, each family requesting a cow was visited to initiate steps in arranging for a cow through the banks. Suddenly people started backing out saying that they did not fully comprehend what they requested and wriggled out of the situation.

The AFC-RUHSA Report itself is a big document of 622 pages of mimeographed materials. It was RUHSA's operational blueprint. It was prepared by the Agriculture Finance Corporation, sponsored by the Central Bank of India, and joined by seven other nationalized banks. The report was divided into two major parts with a number of chapters in each part. The first described the situation in K.V.Kuppam block in detail. The second part described the various economic projects planned for the area. The roles and functions of the various partners were clearly defined.

The AFC-RUHSA Intensive Development of K.V.Kuppam Block Report was a well-written document with detailed plans for various economic activities and how the banks would fit in with the various schemes. One of the first activities as a result of this report was area demarcation for the various participating banks. Eight banks participated in this programme and by allotting specific areas for each bank, it was easy for banks to co-ordinate their lending so that there was no overlap between villages. In the early days of RUHSA the relationship with the banks was so close that the Board of Governors of the Central Bank of India held it's meeting in RUHSA. Having got the banks on

its side for development, the next step was to identify appropriate schemes according to the AFC RUHSA report and promote the various development activities.

Programme Implementation

Among the various responsibilities, RUHSA specifically took up extension education for economic development, organization of farmers into groups and the technological risks involved. In practice all the three functions were very effectively carried out by RUHSA. RUHSA earned a name for itself by motivating the community to have a credit worthy name in banks. Therefore most people repaid their loans. The final emphasis was economics of scale.

Sekar, Kalaimani, Ganesan and Govindaraj Staff of RUHSA appreciating the good quality bags stitched by the SHG members

Specific plans described in great detail the full extent of each project including the costing, the financing schedule, and the tripartite agreement to be signed. The projects described related to sericulture in a big way, poultry both layer and broiler, weavers co-operative, buffaloes, feed mixing unit, match industry, washing soap, shoe uppers, oil extraction, bamboo basket making, and industrial hand gloves.

Of the above list few were never started. These include buffaloes, shoe uppers, industrial hand gloves, oil extraction and washing soap. There are no obvious explanations available. Two hundred bird layer poultry was started with government support. Very soon it was realized 200 layer birds did not provide the economics of scale to be profitable. Therefore these were modified as broiler poultry.

There were two major attempts at sericulture. During the first time the focus was only on rearing of silkworm cocoon. It appeared very promising and then fizzled out. During the second attempt RUHSA went in for silk reeling as well. But still it failed. The first reason was that there was always a competition between paddy and sericulture. If there was adequate rainfall the

first choice was paddy. The second reason was that the market in Karnataka for cocoons was always higher than the local rate and so farmers transported the cocoons to Karnataka. Finally what broke the camel's back was cheap import from China. With sericulture never stabilizing, there was no demand for bamboo baskets from sericulture.

The various amounts of money facilitated as loans over the years are shown in the following table.

Bank Finance for Economic Development

Year	No. of bene ficiaries	Bank Loan	Own money	Govt. subsidy	Total
1978	265	3,34,635	23,640	41,190	3,99,465
1979	1,006	17,12,986	39,965	2,25,005	19,77,956
1980	1,816	39,53,945	2,94,845	4,56,876	38,05,666
1981	1,876	31,95,645	2,30,050	8,55,355	42,81,050
1982	954	16,32,598	2,18,685	7,55,217	26,06,500
1983	875	24,02,871	2,70,910	5,91,851	32,65,632
1984	843	25,31,961	1,81,345	5,09,575	32,22,881
1985	838	22,24,775	1,94,700	7,10,090	31,29,565
1986	773	22,93,161	3,02,025	5,98,956	31,94,142
1987	578	23,34,129	2,76,900	4,87,683	30,98,712
1988	318	9,79,465	72,400	80,785	1132650
1989	355	14,70,475	1,09,500	89,700	16,69,675
1990	240	8,35,210	49,850	43,590	9,28,650
1991	135	8,21,125	80,350	84,000	9,85,475
1992	97	3,62,550	65,250	71,570	4,99,370
1993	102	4,11,450	50,300	77,000	5,38,750
1994	149	6,50,300	71,400	63,900	7,85,600
1995	69	4,10,050	95,800	45,500	5,51,350
1996	92	5,01,900	1,03,500	29,500	6,34,900
Total	**11,341**	**2,81,59,231**	**27,31,415**	**58,17,343**	**3,67,07,989**

The various schemes under which these benefits were provided are shown in the following table. This data is taken from only one year just to give an idea of the various schemes supported under bank finance.

Types of beneficiaries of Economic Programmes

1985-86 Beneficiaries

	Benefit	Total	Below poverty line
1.	Milch animals	239	217
2.	Sheep	86	81
3.	Poultry	60	56
4.	Duckery	3	3
5.	Piggery	4	4
6.	Calf rearing	34	27
7.	Self employment	57	40
8.	Village artisans	17	15
9.	Small business	70	52
10.	Agriculture development	66	51
11.	Mango cultivation	21	14
12.	Crop loan	111	60
13.	Biogas	70	37
	Total	**838**	**657**

What these tables show is the range of inputs provided for the economic development of the community. Economic development is not dependent on any one or few activities. Diversified range of activities contributes both to increased income as well as to their sustainability.

The second table also shows the priority given to those below the poverty line (BPL) for economic development. They form the large portion of the beneficiaries, The poverty line is set by government and is periodically revised upwards. Those coming below the poverty line are entitled to support under government sponsored economic schemes. The BPL is estimated based on the cost of purchasing certain predetermined items of people's need. In 1978 the poverty line was Rs.3,600 per year per family. While many of the poor do get into the list of BPL, due to interplay of politics and corruption some from above the poverty line also get selected. However this must be understood in relation to the manner of identifying those below poverty line.

The other aspect shown by this data is the volume of work necessary to bring about economic development. Scale of operations is necessary to improve the overall economic situation. The need is in thousands of beneficiaries and not in tens or even in hundreds. These heavy inputs were in the early stages of the work and then as people took over responsibility, RUHSA's inputs kept coming down. In fact when a special study was carried out to determine the extent of the impact of the dairy project the number of cross-breed cows were about 25,000-30,000. It is just this type of large inputs that makes a significant economic change in any area.

Match industry was the other major effort made. This industry has a very rigid licensing procedure. These were adhered to and a good unit was started. However some chemicals because of their value in explosives are licensed for each purchase. It was just about impossible for RUHSA to go through the bureaucracy involved and to get the permits. Finally it was closed.

Another principle of economic development has been the importance of small businesses as opposed to large industries in relation to overall economic development. Tamilnadu is the best example of this model. It has been stated that Tamilnadu does not have the mineral wealth of some of the North Indian states where most of the heavy industries were established. Therefore Tamilnadu started small industrial estates, which in turn developed small townships, which have contributed significantly to its development. Similarly among other approaches, small businesses were also promoted extensively throughout the block. People starting with investments as little as Rs.100 have been able to earn sufficiently to improve their livelihood. Not only have the poor been able to earn a reasonable livelihood, but also distribution of wealth has been in an equitable manner.

Some of these economic activities are dependent on the market forces with success and failure alternating. Having experienced the business process there is enough evidence among the people to look for alternate sources of income without giving up in despair. This is one hallmark of sustainability.

For instance 2002 is a drought year. Inspite of failure of monsoon there is no despair as twenty years ago, as many own dairy cattle and can survive on the yield of milk although their income has significantly come down.

9. MONEY PLANTS

Negotiations were on to employ a domestic servant in one of the homes. After the discussions on the work the final question was asked, "How much wages would you like to have?" Without giving a second thought she replied, "I earn two rupees a day therefore give me thirty rupees per month." Assuming the poor illitrate woman did not know her mathematics the next question was asked, "How did you arrive at rupees thirty?" Again the answer was spontaneous. She said, "I earn two rupees per day and I get work for only 15 days a month. Therefore I earn only 30 rupees per month."

Exploitation! Human rights! Fight for just wages! Conscientisation! Surprisingly, RUHSA did not rush into any of these strategies. An attempt was made to understand the dynamics of labour and income in this rural area before any systematic intervention was to be provided.

The field of rural development was newly emerging. Non Government Organizations were beginning to establish roots in different parts of the country. A plethora of paradigms of development were also simultaneously emerging. Most of the major strategic approaches centred around the following two major paradigms. The first was on choosing a professional service delivery approach. The second centred around a motivational or conscientisation or as it is called a 'rights' approach.

Having chosen the model of work, the next decision was on choosing the programme beneficiaries. The issue was whether the programme beneficiaries should be only the poor or should development encompass the entire community? With little experience to fall back on, RUHSA chose the service delivery model without any hesitation. Service to the entire community was chosen instead of just the poor. Two apparently insignificant activities that were later carried out established beyond doubt that RUHSA had made the correct decisions.

A new programme was started to improve the literacy in the community through adult education. Initially thirty adult education centres were started. Each night the animators in these centres would conduct literacy classes. RUHSA's Rural Community Officers (RCO) supported them. The focus was on literacy and numeracy. The initial response was satisfying.

Therefore it was decided to expand it to one hundred Adult Education Centres. It was also decided to build the capacity of the trainers especially the

RCOs. Among other lessons taught, the one that caught the attention of staff was the emphasis of linking up literacy with the perceived needs of the learners. So the RCOs took this lesson down to the level of the animators. They started with a needs assessment exercise among the animators. The animators listed low wages as a major problem along with exploitation and alcoholism. Therefore the entire training focused on this problem with messages and songs on bringing justice to the people. The animators left the training charged for action.

Only one RCO took the whole exercise very seriously. He motivated the animators in his area to systematically introduce what they learnt to the learners in the night classes. Within a few weeks the adult education learners were also equally charged for action and ready for the fight. The poor learners struck work demanding higher wages. The response from the landlords was swift and much more powerful than the organizers anticipated. At the end many of the learners ended up in the hospitals requiring stitches for the deep wounds inflicted by the landlords. That was the one and only time that an agitational approach was used by RUHSA.

Jasmine

Just about the same time, the first results of an earlier input was beginning to be felt. Following the principle of serving every section of the community, a number of better off farmers were taken for short training programmes to the Agriculture University in Coimbatore, approximately 400 Kms. away. In one of the visits the farmers received a few root slips of a new variety of jasmine flower that required less water. These root slips were cultivated by one young farmer in the community as well as by RUHSA in it's campus. Within a short period, there were many root slips available. These were distributed to young farmers in a particular village called Rasulapakkam to start cultivating this.

The farmers were enthusiastic about this crop because K.V.Kuppam block was a drought prone area. A common problem witnessed by many farmers was that when rainfall was scanty, subsequent crops of banana and sugarcane stood the risk of failure. A number of farmers had actually gone through this experience. The crops would grow well till about six to seven months. Then when the rains failed the good crops would wither away in front of their eyes. The farmers were keen on trying, as this variety of jasmine had characteristics that could overcome this problem.

Sure enough it was a big hit. The initial farmers who tried this were excited. Unlike in sugarcane or banana where everything was lost in one go, with jasmine, it was different degrees of success based on the rainfall and water available. Even with a small portion of cultivated land, farmers began to get a steady income from jasmine. They just loved this new crop which they considered as the true money plant.

Mr. Murugesan responsible for agriculture work at RUHSA helping Mrs. Bhatikar the collector's wife inaugurate an exhibition on RUHSA Day. The collector Mr. Bhatikar and Dr. Mukarji look on

With a steady source of income to the few farmers who experimented with this, through young Farmers Association at Rasalapakkam village, soon other poor farmers started this cultivation. Within a short while they were able to change their thatched roof to concrete roof. Initially they used the public transport to take the flowers to the market. When they realized time was an essential factor in the market, one by one these farmers started purchasing motorised two wheelers without gears to begin with and soon they changed to more powerful motor bikes with gears.

Initially, they were dependent on middlemen in Vellore town for the final marketing of flowers. Then these farmers got together and appointed their own man in Vellore. This man learnt the tricks of the trade and soon they started sending the flowers direct to a big temple town at Tirupati for a much higher price. With rapid increase in area under jasmine cultivation, many more marketing opportunities opened up even in the village itself with many collection points at main road junctions.

The marketing increase was based on a geometrical expansion of jasmine cultivation. With the initial success, more farmers started growing jasmine. However plucking flowers was a labour intensive process restricted to the early and mid morning hours. At a particular point in growth of jasmine cultivation, all the available labourers in that village was utilized. Then labourers from the next village started coming in to pluck flowers. As a next step farmers from neighbouring villages started planting jasmine. This process started repeating

over and over again. Once the labourers in a village were fully utilized, farmers would plant jasmine in the next village and so the cycle continued.

Wages

Totally hidden from public gaze was the change taking place in labour. As more farmers planted jasmine, there was a point at which there was no surplus labourers available. To get the available labourers, farmers had to pay even more wages. It reached a stage where farmers had to compete with each other to offer incentives to the labourers to come and pluck flowers. The most common form it took was to entice women with blouse fabrics in addition to the regular wages.

One of the debatable issue that came up was child labour. At the height of flower plucking season when the demand for labour is highest children also get dragged in. Fortunately the labour demand was only in the early morning hours. Therefore, even when children were involved in plucking flowers when time came for them to get ready for school they left the work. The increased income provided by this form of 'child labour' has to be balanced by the fact that schooling was not discontinued. It is doubtful whether it should be even classified as child labour. The world has known great leaders who spent their childhood distributing newspapers before school hours.

Jasmine was introduced to save precious water. One unintended outcome was increased demand for labour. Without any extra effort it adjusted labour wages upwards. Besides jasmine, two other inputs also contributed to increased wages. Vocational training was provided to youth from the villages. As more and more started training, they moved to skilled trade outside the village, decreasing the number of people joining the village labour market. Cattle cross breeding with imported semen from USA initially and then from Bangalore increased the milk yield resulting in greater income to a household activity, again decreasing the number of people going for labour. Together these inputs raised wages for labour to more than any amount, conflicts would ever have produced. Therefore judicious choice of inputs that are labour intensive should be constantly introduced so that the benefits of development gets translated as increased wages for the poor.

Mango

There have been other inputs in agriculture although not so dramatic as jasmine. The next water saving crop introduced was mango. As time went on and it was observed that labour was being destroyed by mango attempts were made to retrace the steps. It was too late. On one side the wages for labour

had been peacefully increased. On the other side richer farmers were not able to get labourers for their farm work leave alone the actual wages. Mango suited them well. There was hardly any labour involved. The farmers usually gave the crop on lease and did not have to worry about anything. So even as jasmine was growing on one side, mango orchards were growing on the other side having established a reasonably acceptable balance.

RUHSA learnt its first lesson on developing people. Success in overcoming any problem requires a comprehensive multi faceted strategy rather than a single but even apparently successful strategy. If that strategy is controlled by the community rather than a direct handout by the service providers, it is far more sustainable. Ultimately, increasing wages was based on increased productivity with the widest base of human resources and not by capital intensive isolated industries providing labour for a few. Because of their value, the community took up the subsequent propagation of these and have continued to be sustainable in people's hands.

10. INCREASED RICHES THROUGH LIVE STOCK

When the responses in the baseline survey of 1978 was analysed the desire to own a good cow was the most common request made. However when RUHSA and the banks were ready to provide the cows many started retreating and did not want a cow. However the trend got reversed once RUHSA got into the cattle business.

Cattle

It is important to understand the place of cattle in the economy in the late seventies to understand the probable reasons for this volte-face by the people. Except for a few farmers, most had only country cows that gave about one to two litres of milk a day. Even this little milk was committed to the money lender who had earlier advanced money to the farmer. The milk yield being so little, the farmer appeared to be always in debt to the money lender. Further not all were interested in getting indebted to banks. While some indicated that they were not interested in taking care of a cow, others said that they had mentioned a cow without any specific thought or purpose. Therefore it was of no surprise that people had little interest in such a venture.

Based on discussions with community leaders the feedback obtained from them had been incorporated into the Programme Proposals. The understanding then was that the quantity of the local low milk yields could be increased by improving the quality of the offsprings of the local cows by cross fertilizing with bulls of higher quality. However instead of this plan, what did happen was importing gifted good quality semen from the USA and providing Artificial Insemination (AI) to the local cows. The plan was good and feasible but a number of activities needed to be quickly carried out to implement such a programme.

The liquid nitrogen flask used by Village Veterinary Guide Mr. Selvaraj of Keelmuttukur and Live Stock Assistant Mr. Nagarajan of RUHSA which made the difference in cattle cross breeding.

The funding for the AI programme also included building the infrastructure needed for promoting AI. The first essential item needed were special flasks that could store liquid nitrogen, the coolant needed to keep frozen semen alive and intact. Liquid nitrogen maintains temperatures at minus

91.11 degrees Centigrade. Mechanisms needed to be worked out so that there were sufficient numbers to ensure uninterrupted cold chain.

One of the weaknesses of any natural insemination programme has been the difficulty in getting the cow when on heat to an insemination centre. Invariably there was a delay and at times months were lost before the cow became pregnant. To overcome this problem it was decided to reverse the process so that instead of the cow being brought, the frozen semen was available at the village site so that insemination is not delayed. This needed additional smaller flasks to transport the semen from the mother container kept at RUHSA campus.

This strategy also needed trained personnel at the village level who could carry out the artificial insemination. Therefore a category of volunteer called the Village Veterinary Guide (VVG) was planned. A total of 18 VVGs were trained for each of the 18 Peripheral Service Units. They were all males who completed their high school and were trained over a period of one year. Their curriculum included the basic anatomy of the cow and process of AI. Skill in verifying a pregnancy, and treating common ailments in cattle under the overall supervision of a senior veterinarian were also given. They were provided with a bicycle and a small flask, backed by a fixed travis in the village where the cow could be examined and AI carried out.

Since veterinarians were not freely available, then it was decided that graduates in Zoology would be trained as live stock assistants who could provide the support needed by VVGs in their work. So, another new category of staff were functionally trained to be able to support this new programme in cattle cross breeding. A total of six individuals were trained as Live Stock Assistants.

In training the VVGs, it was in built into the programme that after the initial one year of training they would be provided with a certificate and that they could provide services to the community in a self employed manner. However, to the dismay of everyone the day after they received the certificates, they all submitted their resignation indicating that they have no interest in the work. It came as bolt from the blue, but without wasting any time a new batch was immediately selected and the AI programme was carried on without any major break in continuity. However, the pattern of training was suitably modified without any expectation of self employment.

With this staffing infrastructure, within a period of three years the face of the cattle population in K.V.Kuppam was completely changed. Wherever one turned it was cross bred cattle that were seen. In the early stages, there

was an interest in Jersey cows. But later the interest shifted to Holstein Freischian (HF). While the Jersey cows were smaller the HF cows were slightly bigger and more impressive.

It was not just change in cattle population that was witnessed in K.V.Kuppam block but suddenly there was an increase in the amount of milk produced, which was beyond the capacity of the local population to absorb. Discussions were simultaneously going on with the Government Co-operative Milk Producers Union so that they can lift up the additional milk being produced. With their acceptance, Milk Producers Co-operatives were organized in a number of villages strategically located so that the entire additional milk could be collected by the trucks that came twice each day. With this tie up working well, the milk collection increased and people were getting more money in their hands. Further, there was a greater demand for dairy loans so that more of them could encash on this. Finally the moneylenders were thrown out of business but they also got on to this programme and so they did not become poorer.

As more and more farmers started getting into the dairy business, the milk yield in the block started increasing. The milk co-operatives had established a reasonably good system for collecting the milk. The quality of milk was routinely tested for fat content and adulteration. Money was paid fairly regularly to the farmers. As the funded project in RUHSA was coming to a close, the co-operatives and the Animal Husbandry Department of the government entered the block in a big way with precisely the same work RUHSA had been doing namely AI, backed by veterinary coverage. So it was easy for RUHSA to withdraw its programme without competition. However already a strong foundation for milk production had been laid by RUHSA. What remained was only to consolidate it.

All this only contributed to a further increase in milk production. While the milk production in K.V.Kuppam was very extensive, there was some increase in other areas outside this block as well. The milk collecting unit at Vellore was beginning to feel the overload little by little and periodically, they were refusing to collect the milk as well as not expanding the marketing infrastructure. And then some enterprising farmers began building on another downstream activity, which was at a low level. By the late eighties RUHSA gradually began getting out of the picture and the community was directly managing the growth.

Milk Processing

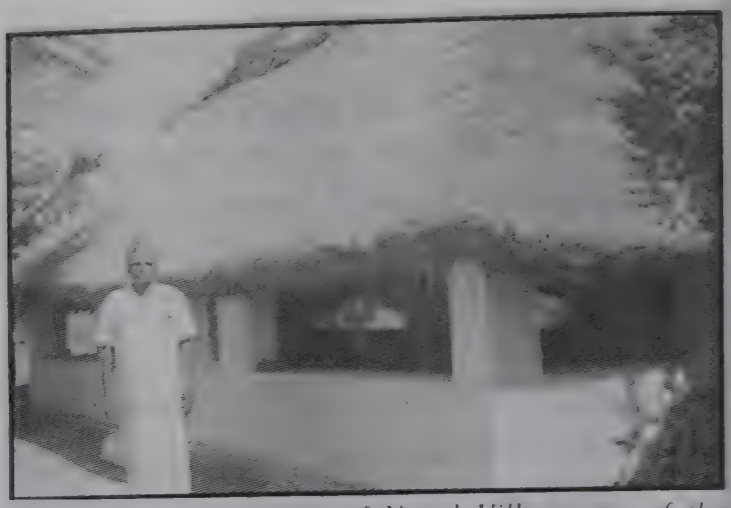
Thus began the growth of the production of milk 'cova' or 'dhooth peda' as is known in North India. Basically this was converting the liquid milk into a solid form by steady heat evaporation of the water content in milk. With sugar added, it formed one of the base for popular milk based Indian sweets. In this process, first of all the shelf life of milk was increased from few hours to a few days. This became popular, as there was now an alternate outlet for milk. Additionally it supported considerable labour as well.

The next step was to ensure marketing. If left to an NGO it is likely that it could have been messed up. Very slowly and painstakingly the 'cova' manufacturers started using the regular bus going in the morning to Chennai (Madras). Trays of this sweet preparation filled every vacant space. They bought two seats when the quantity became more. This morning bus to Chennai was named as the 'milk cova' bus. Those of us who used to travel by this bus felt uncomfortable. It is not sure if anyone complained as it was realized that the entire community benefited. Additionally they sent these by night trains. There were regular merchants at Chennai who handled the goods for the producers. By the time the full capacity of the bus was exploited, the economic clout of these producers had become strong as well as influential. Therefore they were able to motivate the Government Transport Department to start another bus service to Bangalore. The bus arrived after 10 p.m. so that it offered an opportunity to utilize all the evening milk for the Bangalore market. They have reached a stage where they collectively bought a truck to transport these, in addition to the buses.

Broiler poultry

Another activity involving livestock related to the promotion of broiler poultry in the block. This is how it came about. Around the time RUHSA was started, the Government had a programme for promoting 200 bird layer units for egg production. With bank assistance small units were constructed and the process started. Within a short time it was realized that a 200 bird unit was not a viable size. So here were the poultry farmers with empty sheds and unpaid bank loans. Therefore RUHSA and the Poultry farmers Department decided together that instead of layers if broilers could be tried it might give some chance. Talking with the bankers and the government, a new programme was started. It was an instant success. Farmers who lost money earlier were beginning to recover what was lost through the profitability of the broilers. It picked up rapidly and many farmers started raising broiler poultry.

An excellent tripartite agreement was entered between banks, broiler producers and ASHUR, a sister concern of RUHSA involved in marketing. On it's part ASHUR who would ensure the loans are repaid and the balance credited to the individual's account. This programme went on successfully for a number of years till an unexpected problem struck.



Mr. D.P. Subramaniam of Nagal Village one of the consistent and successful broiler poultry farmer in front of his poultry shed.

The feeds produced by ASHUR was of good quality and was priced moderately. However, at one point in time, aflotoxin a fungus that normally affects groundnuts which is used in feeds contaminated the feeds and this had a deadly impact on the poultry causing many birds to die. The farmers lost. Although preventive measures were taken it happened the second time and ASHUR feeds became unreliable.

Simultaneously another problem began to take place. One of the principles agreed in marketing was that ASHUR will pay the farmers a fixed rate for the birds produced by them that would ensure assured but steady profits. It meant that ASHUR would be responsible for the fluctuations in the market. The losses would be made up by gains during times of increased demand. This is when greed set in. Having sold the birds to ASHUR during the loss making time, they then sold directly to the market when the price was high. So a few persons broke a well operating system. Together, both these broke the back of the poultry programme.

However the skill provided to the people was sustainable. They were able to effectively raise broiler poultry. Many had gained considerable skills in assessing the quality of poultry feeds available in the market. Further, by the response of the young chicks they could tell whether the feed was contaminated and change the feed early. They were confident of marketing. So the programme went on well on its own without support from RUHSA until disaster struck. A major poultry disease wiped off thousands of birds in many parts of the state including this area. That left behind poultry farmers badly indebted.

It is just at this stage that the corporate sector set in. Where RUHSA had permitted broiler units in multiples of 200 birds, in the new order it was multiples of 1000 birds. Further the companies took care of every activity just as RUHSA did. However all the birds belonged to the company and the farmer was paid on a weight basis for raising the birds. So depending on how well the farmer took care of the birds and ensured good weight gain, they received more money.

With large quantities of broiler chicken available in the community the next step was to promote marketing. The urban markets were the initial ones targeted. With stiff competition, the rural market was also promoted. Till recent years, poultry meat was available only as full bird live or dressed. In the new pattern, poultry meat shops were established in just about every nook and corner and was available in smaller quantities as people desired. These shops have been set up along the main roads. At present within a stretch of 3Kms. there are about 7 poultry meat shops. Not only has business increased, poultry protein is also available more readily.

Month old broiler chicken in a village farm, a common sight in K.V.Kuppam block.

Not only was poultry a better business proposition, but environmentally also it was considered efficient. Poultry farms were less water intensive and demanded less water than traditional agriculture. Further, poultry droppings were also good organic manure. For those who also had fish farming, poultry droppings became a good fish feed as well. What was started as an enterprise that initially failed, constant programme modification has resulted in a very successful activity having an impact not only in making people rich but also better nourished.

With a good dairy and poultry unit established at the RUHSA Campus, they became a centre for training personnel in dairy and poultry farming. One of the agencies that used RUHSA extensively was the Ex-Servicemen Board. This Board helped military personnel when they left the armed forces on retirement with skill training. A one month composite training on dairy and

poultry was organized for many under a programme called Preferring Ex-servicemen for Self Employment (PEXEM).

This Pattern of livestock development is sustainability in its truest form. There was no pressure from any funding agency. The NGO established the basic infrastructure and the mechanism for the milk or poultry production. Beyond that it was hard work by the people. Only they could decide how much effort, time and risk that can be put into this venture. But it was worth it all. The spread effect of this whole activity is so vast that it helped in distributing wealth equitably. The owners of cows earned from the milk. Milkmen who milked the cows earned their wages. 'Cova' making labour earned their livelihood even as the 'cova' producers earned a steady income. In the case of poultry the industry itself built deep roots with both poultry farming and retail trade.

11. FOOD SECURITY AND NUTRITION

Malnutrition, diarrhoea and acute respiratory infections are the three most common diseases that have vied with each other at different periods of time to be the leading cause of morbidity and mortality. Therefore interventions to bring down malnutrition naturally forms an important part of any good community health programme. With approximately 27% of under five year old children in this block suffering with severe form of malnutrition as screened by Mid Upper Arm Circumference (MUAC) in 1978, it is no surprise that RUHSA took up this problem early in its programme of activities.

There is a well known saying that goes as follows, that is applied so perfectly to managing the problem of malnutrition in the RUHSA project area.

> God Grant me the
>
> SERENITY
>
> To accept the things I cannot change. The
>
> COURAGE
>
> To change the things I can. And the
>
> WISDOM
>
> To know the difference
>
> - Anon

One of the doctors was entrusted with the task of carrying out a literature review to find out the various strategies adopted by different programmes throughout the world to combat malnutrition with emphasis on Protein Energy Malnutrition (PEM). This was to form the basis of choosing a specific, relevant, and appropriate strategy for the control of malnutrition problem in K.V.Kuppam block.

Managing Malnutrition

In the late seventies, some of the strategies that had shown some evidence of success were, hospital based treatment of malnourished children, malnourished children managed in community based day care centres, feeding programmes including food supplementation, and food fortification. The last one being highly technology oriented and requiring macro level planning was

not considered. Similarly feeding programmes requiring large financial outlay, as well a right monitoring mechanism to avoid leakage and theft, and thus being not sustainable was also rejected. The first two approaches had some relevance as RUHSA had a health centre and a community based programme as well. However when both were studied in greater detail, it was realized that using both the approaches, it would be possible to treat and cure malnutrition by over 60%. However when those treated would be sent back to the villages, half of them would eventually die. Our assessment was that with the best efforts, only about a third of all children with protein energy malnutrition would finally manage to survive. Since 70% of the children would die any way, and as RUHSA do not know where these malnourished children live, it was decided to treat only those who presented themselves to the health centre and that one would not search the countryside to identify these malnourished, which in effect meant RUHSA would allow a number of malnourished children to die. This was a difficult decision made after considerable discussions among staff. Criticism was anticipated for this decision and RUHSA did receive criticism, but based on the then available evidence there was very little that could be done to save the lives of those who were considered as marasmus or kwarshiorkor. The problem of malnutrition was so pervasive that by treating malnourished children one could not change the pattern of malnutrition.

It was realized that treating malnourished children in the entire block would require considerable efforts at identifying them, probably even greater efforts at convincing mothers to a centre for possible admission and treatment. It was accepted that this would not be the most cost effective approach to handling malnutrition. Alternative approaches to combat malnutrition would probably ensure a more efficient use of the limited resources likely to be provided.

Nutrition Education

After much deliberation in 1980 a nutrition education programme was selected to overcome the problem of malnutrition. Little did RUHSA realize then that the world was rejecting the nutrition education approach even though it was one of the components of the Applied Nutrition Programme then in vogue. It needed considerable courage to go ahead with a strategy that stalwarts in nutrition were rejecting and which was known had the answer to the problem of malnutrition. Shortly afterwards the Tamilnadu Integrated Nutrition Programme (TINP) also introduced this component in the early eighties, although

it was termed as Information Education and Communication (IEC). In fact TINP produced some of the best educational and communication materials on nutrition.

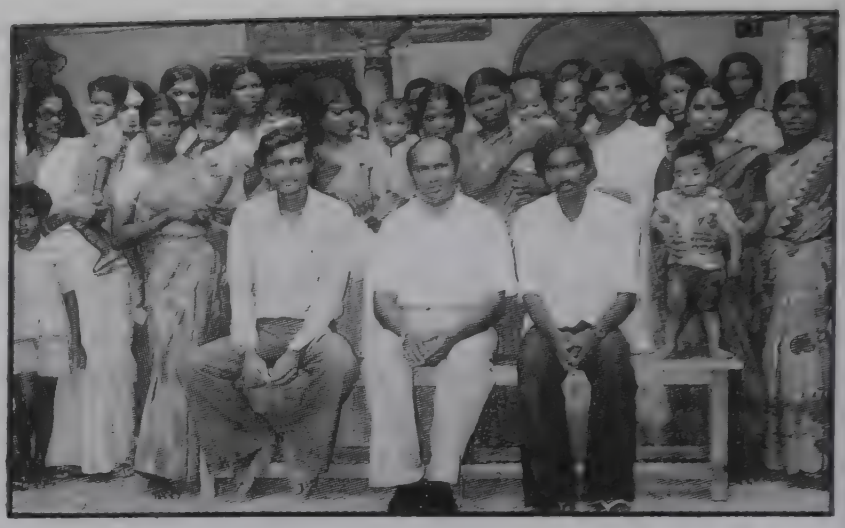
The programme in RUHSA was called the Special Nutrition Education Programme (SNEP). On a pilot basis it was started in 1980 and went on till 1986. It consisted of a 30 day nutrition education programme for mothers with under 2 year old children. The training content was based on the current understanding of malnutrition, which heavily focused on PEM. Since the entire training centred on kwarshiorkor and marasmus the two severe forms of PEM, weights of children were taken regularly. Other nutrition deficiency diseases were given lesser importance although not completely ignored.

Getting mothers to come continuously for 30 days was considered a difficult task. Therefore the project had built in a compensation package to offset the wages lost. Each mother successfully completing the course received Rs.50. However there were agriculture seasons like planting paddy, and weeding and harvesting groundnuts when even this Rs.50 was not sufficient inducement, as the labour demand was so great. Later on, the training calendar factored these periods of intense labour demand.

The method of education included short lectures with the use of flash cards, demonstrations on the preparation of nutritious diets for young children, and feeding of children with a wide variety of nutritious foods. Slides and films were also used. The communication materials produced by TINP were extensively used, as they were very good. Review and repetition of messages was constantly carried out so that the mothers could retain the messages.

One of the problems encountered was in identifying 30 mothers with under five year old children from the same village. Therefore the child's age was extended up to five years and on the other side, pregnant women without any children were also selected.

Overcoming tradition was one of the major obstacles in the nutrition education programme. One major problem related to changing food taboos. Papaya fruit was considered a hot food and that it should not be given to children. Gaining courage, the educators challenged mothers to feed papaya fruit to the children during the programme, promising to take care of the children if there was any adverse effect. With initial efforts succeeding, within a short period mothers were feeding papaya to their children.



Dr. Mohan Sunkad and Mr. Muniraj with the author at the start of the Special Nutrition Education Programme with the mothers

The other problem was related to the mother-in-law. As new messages were given to the mothers, they were encouraged to try these at home. At subsequent sessions they were encouraged to share their experiences with their trials at home. When some mothers expressed their satisfaction in their attempts at home, other mothers would be motivated to try themselves. However in some homes the mothers-in-law stuck to tradition and prevented them from trying out anything new. In disappointment these mothers would share their negative experience. Then other mothers who had no difficulties at home would team up together, and approach the tradition bound mother-in-law and motivate them to change through group pressure. Thus the process of changing tradition in the community was begun without any direct confrontation.

One of the unintended observations of this education programme was the effect it had on caste relations. With mothers coming from the same village during the education, it meant they belonged to different castes. In the class setting, the problems of caste came up. The high and low caste people would not sit together. While in RUHSA one was unhappy, one did not force the issue. It was surprising that by the end of the first week they were mixing freely. Only one batch out of 30 retained the caste identity through out the programme of one month and maintained their separate identities.

Another unique feature of the SNEP was the emphasis on using locally available nutritious foodstuffs. The staff visited the local weekly market, identified the foodstuffs generally bought by the people. The nutritive value of the common ones was identified. Additionally other nutritious foods available in the market were also identified. From these, four items were selected to prepare a nutritious food mix for children. The ingredients were peanuts, ragi, horse gram both local millets and jaggery.

The ragi was malted by allowing to sprout overnight in a moist cloth and was shade dried. Along with the peanuts and horse gram the ragi was

gently roasted and milled into a line powder. Powdered jaggery was added both to add energy as well as to provide a sweet taste. Initially it was centrally prepared and distributed through the pharmacy and the village clinics. However additionally, the skill was taught to the women in the villages, so that they can prepare it in their homes.

In the initial rounds over a period of three years 727 mothers were trained on nutrition. With evidence of success with this approach, the programme was then modified so that the payment to mothers could be dispensed with. This meant that only evenings were available, and therefore only essential components had to be retained for training over a shorter period. Therefore a campaign approach was adopted, using a curriculum design to build a communication strategy.

A clear cut set of messages were prepared for the campaign. Messages included those that directly affected nutrition like breast feeding with colostrum, supplementary feeding etc. Additionally messages were also included those that indirectly affected nutrition. These included family size, immunization, and early treatment of childhood illnesses etc. The messages were pretested in the community.

The programme was well monitored. Regular weights were taken for the children. Surprisingly it was observed in spite of educating mothers on good nutrition and with their regular practice as well, there was no changes in the weights of children who joined the education programme with their mothers. Over time it was observed that the pregnant women who attended the classes had more normal weighing children than their controls. Even better was the birth weight of children who were born subsequent to the training. This observation clearly indicated the importance of preparing mothers for parenthood and that practically it is the most efficient to provide nutrition education of adolescent girls in the classroom setting.

Measuring changes in Malnutrition

The ultimate evidence of the impact of a nutrition intervention programme is the changes observed in anthropometric indicators. Periodic cross sectional surveys were carried out at different points in time. Some form of comparison groups were also used in three out of five surveys to determine if the changes were significant.

Almost throughout the world weight is used as the anthrometric measurement to classify children as normal or different grades of underweight status. While it is a simple and useful indicator, the weight of an individual

can fluctuate considerably over time. Therefore more recently height has been promoted as a better means of measuring progress in a project setting. Height measurements can be classified as normal and different levels of stunting. Besides the above two, weight according to the height of the individual can also be analyzed. Weight for height classifies an individual as normal and different levels of wasting. The last two indicatiors are cross tabulated and provides what is called Waterlow's Cross Classification. Increasingly this classification is used to present changes in nutrition status. Accordingly four classifications are possible, namely normal, stunted, wasted and simultaneously stunted and wasted.

Using this classification the changes in nutritional status for children in K.V.Kuppam has been calculated. Unfortunately height and weight measurements were not taken at the baseline. Therefore data is available only from 1982-83. Normal children which was only 38.0% in 1982 went upto 57.8% in 2001. Stunting which 41.0% decreased to 24.3%. Similarly wasting which was 41.0% decreased for more steeply to 11.1%. Simultaneous stunting and wasting decreased from 10.0% to 6.9% between 1982 and 2001.

In 1996-97 there was a special project on anemia in pregnancy carried out in K.V.Kuppam. As part of this, a baseline survey was carried out in K.V.Kuppam block with Gudiyatham as the control block. Mothers whose heights and weights were measured in K.V.Kuppam were the same ones who were having under 5 year old children in the early part of the programme. In fact RUHSA was measuring the impact on children who had been beneficiaries of RUHSA's health and development activities.

The height and weight of pregnant women in K.V.Kuppam who were born about the time of the start of RUHSA's programme are greater than those from the neighbouring block. Data on Body Mass Index (BMI) which is an indicator of thinness on one end and obesity on the other end also shows significantly more obese women in K.V.Kuppam than in the control area.

This nutritional change is not in a vacuum. There have been improvements in the various determinants of nutrition. Crude birth rate and death rate have come down. So also infant mortality to a larger extent and perinatal mortality to a lesser extent have come down. Additional available data also shows that measles, whooping cough, poliomyelitis, tetanus neonatorum have almost been completely eradicated Adult and childhood tuberculosis are also on the decline. Immunization coverage is over 85-90%.

Finally the base on which all this rests is successful community based organizations consisting of Women's Self Help Groups (SHG). Besides success in organizing, training and financial management, a critical mass of successful interventions has brought about change and the SHGs contribute to sustaining the change.

One of the observations of RUHSA's nutrition programme are the difficulties encountered in bringing about weight changes. Those who enter a programme tend to continue to be underweight for age especially in the 2 to 5 years age period. This observation has been made also in settings outside the RUHSA programme as well. Programme personnel are under pressure to show objective changes of an intervention. With no apparent change there is a tendency to give fictitious figures just to satisfy their bosses who expect an automatic change in weight following an intervention programme. There is a need to study this relationship in the future. There are also indications that simultaneous measurement of height and weight could throw more light or changing nutrition status as a result of intervention. In a programme setting periodic cross sectional surveys could be a cost effective mean of measuring the nutritional changes at the community level.

12. COMMUNITY COLLEGE PROMOTING TECHNICAL TRAINING

A young man walked into the office one day. He introduced himself as a former student of vocational training at RUHSA and that now he was employed in Bangalore in a well paid job. He was married and that his wife had delivered at the RUHSA Health Centre and that he had come to take her home. His problem was that RUHSA was charging very low for the services as it was subsidized for the poor. His request was whether RUHSA would be prepared to receive higher amount to cover the actual costs as he was entitled to a higher allowance. Why not? This is precisely what we had predicted and were surprised to see it happen so quickly.

Educated unemployed youth formed one of the target groups identified by RUHSA when it was started. The original plan as recorded in the Programme Proposal is as follows:

> *"This will cover the rural populations who have studied up to VIII standard or more and are not able to find meaningful employment. These programmes will include self-employment schemes and the related vocational training. The general concern is for the future adults of the community who if not helped to stay and contribute to the development of the village would migrate to the urban areas looking for employment where eventually they are frustrated in their attempts".*

Vocational Training

In 1980 the first programme organized was electric motor repairing in one of the villages. Since this area is based on agriculture with deep wells and electric motor irrigation it was assumed that there would be the need for frequent repair of such motors. Subsequently this was extended to another village with intensive agriculture.

The next programme was on bicycle repair mechanism lasting three months duration. This was the first well planned course organized in the Central Service Unit. There were a total of 38 students in the first class. The assumption was that there would be an increase in demand for cycles and if these youth could establish cycle shops in strategic locations then it would help in self-employment. Their skills in cycle repair will contribute to the shop. This assumption was almost on target as many were well employed in their own small business. However the capacity to absorb large numbers was limited and therefore within two years this training naturally came to a close. Probably

the real reason for the closure was the attractiveness of the other new courses started in 1981. An attempt was made to train women in this trade. Men competed with them and threw them out of business.

It is difficult to imagine what a simple bicycle repair course would do to an individual. A young bright boy from a distant village was in one of the earliest bicycle repair courses. He was studying in his fifth standard when he joined this course. As all other students were only in their 6th to 7th standards, he moved in the class in an arrogant way without respecting other students or even the faculty. He completed the course and went home with his certificate. Unfortunately he lost all his other valuable certificates except the one from RUHSA. Therefore anxiously he applied for a loan with this certificate. The bank granted him the loan with which he bought 5 bicycles. He was successful. Then he established a painting set up and he got more income. He built it up further with a spare parts shop earning more income which led him to establish a finance company.

As these two training programmes were being initiated it was realized that the vocational training programme was meeting a felt need and as more requests came in the training programme got more systematized. The broad objectives of this new programme for youth were:

1 To identify needs and potential beneficiaries for suitable training so as to introduce income generating schemes in the community.

2 To work with the government, nationalized banks and others in developing appropriate feasible schemes for the beneficiaries and helping with project applications for assistance (financial or otherwise).

3 To establish a vocational training centre at K.V.Kuppam for the community and develop programmes of training for the people. This would provide facilities, workshop, equipment and staff for running the project and co-ordinating the activities.

Following the first experience with bicycle repair mechanism other courses were quickly formalized. The first three were automobile mechanism involving both four wheel vehicles and motorcycles. RUHSA had a number of both types of vehicles in use. It was felt that this would form a good base for their learning. The third was electric motor rewinding to which later house wiring and household appliances were added. Twenty years later these courses are still popular, sometimes the applications are beyond the capacity of classrooms and instructors.

Within a period of five years the number of courses and the number of students also increased considerably. The next course was on radio and transistor and later included tape recorders as well. It next moved over to television mechanism including operating and repairing video projectors. Tailoring, welding were the other two courses subsequently added. Finally air-conditioning and refrigeration course was added. Historically it moved from a simple to the more complex.

The selection process was not too complicated or restrictive. Where scientific knowledge was essential as for television mechanism, students who had completed their 12th standard with physics as a subject were favoured. Whereas the old requirement of 8th standard was acceptable for motor rewinding and house wiring as well as for welding and tailoring. Aptitudes were also briefly assessed although not in a rigid manner. For automobile four wheel course the minimum expected age was 18 as it was the minimum age for licence.

The effectiveness of the training at RUHSA is illustrated by the story of another young man who was from a rich family. His father wanted him to go to the regular college. Instead he fought with his father and entered the electric motor repair and rewinding course. He always wanted to establish his own business. However on completing the training he joined as an employee in another shop. Soon he was doing so well that he bought the shop. As more money came in he built two new shops, one for servicing and the other for spare parts. He is now a rich man in his village.

Another young boy from one of the villages studied electric motor rewinding. On completing his studies he joined a shop. During the evenings he joined the evening college for polytechnic studies. He obtained his diploma and applied for a government job. Today he works as a Junior Engineer in the Electricity Board.

Most of the courses were of six months duration. It was amazing what the students can learn in six months. Later due to the requirements of government programmes, for a short while they were kept for a full year although students and faculty preferred the shorter six months.

The skills provided in these course were considerable. In the electric motor rewinding course a large number of students were young boys who were working in repair shops already. They did the donkey's work of winding but the master would do the final connections. These boys needed only the training on the connections, which came at the end of the course. The moment they learnt this skill they became a competitor to their masters.

In the case of automobile two wheelers the students on completion were competent enough to start their own repair shops. The early batches of students selectively established their shops at strategic road junctions and are currently doing well. In the case of automobile four wheeler they needed to work as apprentices with someone before they could be on their own. It was the same with television mechanism students. They needed to work with someone. However they were used by many shopkeepers, to go and erect the T.V. antenna, in homes where new T.V.s were bought. Slowly they were able to begin their career. Although welding trainees and tailoring trainees could have worked on their own they too needed more experience and had to establish a name before being on their own.

From one of the villages of K.V.Kuppam a young boy completed the automobile four wheeler course. He got a job as a driver. Soon he bought a pick-up truck. Having earned more money he bought another one and at present he has three pick-up trucks.

That these courses enhanced the social standing after their studies is illustrated by the experience of a student from one of the towns nearby. He completed the television repair and maintenance course. He was able to start a shop dealing with some well branded T.Vs. He rose up in social status and was able to marry a nurse and further enhance his living standards.

Two brothers studied in RUHSA. They completed different trades. One completed automobile two wheeler course and the other tailoring course. The elder brother set up a motor bike repair shop. As he started to progress he entered into the trade of buying old motor bikes, repair them in his shop and then sell them for a profit. Next to his elder brother the younger brother set up his tailoring shop. Now both are doing well in their businesses.

It is possible to narrate many more success stories of how this simple training programme has affected the lives of many young people in this region. As a rule of thumb it was estimated that roughly one third of the students on completion would be self employed as desired. Another third would be employed for a wage in either the same trade of study or even any other. Some among them would be motivated to continue with their studies and were able to complete additional studies. Then there was the final third that probably did not get employed anywhere. Some of them had come only under parental pressure and were in classes only to pass the time.

The training consisted of both theory and relevant hands on practical work. Automobile students would assemble all parts after they had disassembled. They were also trained to the level of getting a driving license. T.V. and tape recorder students would assemble a functioning unit with parts available.

However these were not considered adequate. So they were sent for placements in different set ups. The automobile students would go to auto mechanic shops, T.V students would go to T.V. shops. The government transport depots considered the students a boon as the mechanics had free labour support. The students also had unique opportunities to learn the various aspect of engine repair. Interestingly, because of the rapport they built up some were employed later as drivers. RUHSA trained drivers had a name because if any of the vehicles driven by these former students had any minor breakdown they were competent to rectify and bring the vehicle to the depot. This saved considerable time and effort for the management and they were appreciated.

Students of theRadio & Television course assembling a part

Besides technical training they were introduced to the essential principles of entrepreneurship, so that they were prepared for self-employment when opportunities came by. This part was conducted in a short workshop format over a period of one week. Besides faculty with experience in entrepreneurship, bank officials, and government officers also took classes. As more successful entrepreneurs became available in the community they too came and shared their experiences.

One of the repeated experiences narrated by students was the way the course had changed their complete life style. Before coming to the course, some were considered as rowdies in their villages and were not liked by the elders. However after coming to the course and getting into a disciplined life, they have been accepted as leaders in their villages and were respected by the elders. Many young people were able to establish their goals in life while undergoing this training.

The total number of students who completed these courses over the years are given in the table below. The sustainability of the programme long after funding stopped is very clear. That this programme was carried out at probably the lowest course fee in this area is also noteworthy. Further, when the poor sought for subsidy, it was available to at least a few in each batch.

Beneficiaries of Vocational Training - Year wise

Year	Bicycle	Radio	Electrician	Auto mobile Two wheeler	Auto mobile four wheeler	Welding	Radio & T.V	Tailoring	Computer	Air condition & Refrigeration	Others	Total
1982	38	1	42	-	-	-	-	-	-	-	-	81
1983	21	77	82	42	41	-	-	-	-	-	-	263
1984	-	71	138	82	73	-	-	-	-	-	-	364
1985	-	22	66	33	20	17	-	-	-	-	-	158
1986	-	81	33	86	14	82	66	-	-	-	18	380
1987	-	52	85	39	54	67	57	-	-	-	-	354
1988	-	29	126	68	55	56	95	-	-	-	-	429
1989	-	-	88	92	65	32	87	-	-	-	-	364
1990	-	-	71	33	19	21	93	-	-	-	72	309
1991	-	-	78	-	35	-	48	-	-	-	-	161
1992	-	-	95	-	-	-	-	46	3	-	-	144
1993	-	-	68	21	98	12	65	62	4	-	-	330
1994	-	-	49	44	69	-	53	46	18	-	44	323
1995	-	-	28	-	67	-	47	21	46	-	52	261
1996	-	-	49	111	1	-	53	113	68	38	43	476
1997	-	-	-	21	42	-	24	99	31	24	-	241
1998	-	-	-	42	132	-	55	68	32	55	-	384
1999	-	-	62	33	85	4	62	86	-	63	27	422
2000	-	-	37	16	81	8	43	105	-	86	1	377
2001	-	-	38	19	92	1	37	13	-	99	-	299
Total	59	333	1235	782	1043	300	885	659	202	365	257	6120

While the computer course was popular, infrastructural problems made it difficult to continue with the course. Being capital intensive it was difficult to buy new computers. The faculty available at that time did not have adequate teaching and practical skills. It was always difficult to control a group of inquisitive boys. They always fiddled with costly parts and computer maintenance became a problem. Therefore this course was discontinued.

Over the years due to its very nature of being technical, the courses in vocational training were separate from the other programmes in RUHSA. The training area was away from the centre of RUHSA's activities. With other staff being busy with their own tasks, vocational training did not get into the mainstream. The rigidity with which other courses were planned and implemented did not reflected in the vocational courses. The situation was ideal for major reorganization.

Community College

After years of organizing vocational training an opportunity lent itself in late nineties to upgrade the vocational training under the umbrella of Community College promoted by NGOs coming together. While technically the training remains very much the same there are certain additional features that make it far more attractive. First there is the addition of functional English. Then there is the whole area of life coping skills. These deal in the areas of entrepreneurship, skills in attending interviews, assertiveness, and other areas of personality development which were not fully covered earlier. Finally there is an introduction to computers. In RUHSA the focus on computers is to introduce them to the computerized equipments that are available in each trade or industry covered in RUHSA. Providing computer skills is a difficult task especially when educational levels are low and when they are unlikely to use them in future. Therefore in the Community College model there is involvement of technical personnel as well as training officers from a wide variety of disciplines.

Tie up with industry has also been strengthened. A needs assessment survey has been carried out, trying to understand the needs of trained manpower in the various industrial units situated in and around Vellore where the students are likely to get employment in the future.

This is not a programme independently carried out by RUHSA. Networking with other similar NGOs, there is concerted effort in moving in a

new direction. It is anticipated that through this process, it would be possible to make recognized training available at low cost to rural youth.

On completing twenty years of vocational training, because of the simplicity of the training and providing it at a cost that students can afford, this programme has been fully sustained by the beneficiaries without any external support. Even in the future as long as RUHSA is able to modify and introduce need based courses that ensure livelihood support for youth, this programme will continue to be sustainable.

13. PROGRAMMES FOR THE POOREST OF THE POOR

While choosing a block where RUHSA was to operate, one of the key criteria in that choice was the backwardness of the area as evidenced by the number of poor and marginalized people who live in that area. The indicator measuring this was called the poverty line. Using this indicator, K.V.Kuppam block was identified as one of the most backward blocks within the erstwhile North Arcot District. Among others the poor were one of the target population to be served.

Therefore when the mid term evaluation of RUHSA was carried out in 1982-1983, an attempt was made to determine the extent to which the poorest in the block were actually served. It had been generally known that when a new development programme is implemented, it is not the poorest who come forward to benefit from the services. Generally it is the group somewhat better off and some of the well to do who come forward and receives benefits. The evaluation observed this pattern operating here as well. Therefore it was recommended that in the next phase there should be a positive bias in favour of the poor. In attempting to implement this recommendation, discussion among staff led us to select one thousand poorest families in the block and implement programmes for their development. However, before focusing on initiating programmes for the poorest exclusively, it was decided to identify some key strategies that would be adopted for their development. The staff made initial plans. They were to be finalized only after discussing with the poor themselves.

The first strategy was to reduce costs to the poor. What was feasible and within RUHSA's reach was to subsidize health care costs. Therefore quite consciously health care services were priced at very low levels and even this was written off for the poorest. However simultaneously they were encouraged to pay something for the services. When the actual bill and what they could pay was vastly different, then they were encouraged to donate whatever little money they could afford in a 'hundi' kept separately for this purpose. This helped people maintain their dignity by donating what they could for the services as well as it avoided unnecessary medicines.

Instead of constantly deciding who should be helped, to make administration easy a set of chronic diseases were identified which needed financial support for the poor. The diseases were bronchial asthma, epilepsy, rheumatic heart diseases, hypertension, diabetic mellitus and tuberculosis. The

patients' charts were marked "FREE" so that they could go through the system without any hassle. Additionally childhood immunization and antenatal care were provided free as the vaccines and other medicines were provided by the government freely.

Another strategy adopted was to provide vocational training in some useful trade for young people in these poor families. As vocational training was an ongoing activity it was easy to incorporate the same into the programme without any difficulty.

A slightly different approach was adopted highlighting the wasteful expenditures, which could be reduced. From the time a baby is conceived till it is born, then through different stages of life till death, there are various ceremonies. The poor were encouraged to downplay the less significant ceremonies. Although it had great potential, it was not actively promoted.

Before implementing the program, the first task was to identify and select the poorest. Based on the resources available at that time and for convenience and adequate spread, a total of 1000 families were to be selected. In every geographical area of village, habitation, or panchayat, the staff were asked to identify a few of the poorest from the community. Informally they were ranked in terms of who had the least available food. When poverty was due to current drinking of alcohol such families were excluded. Special emphasis was given to young widows with small children. While the selection process went on fairly smoothly, occasionally the rich and influential leaders tried to get their servants on to the list. However in practice very few ineligible families were selected.

It is pity that at that point in time Participatory Rural Appraisal methods were not in vogue, in particular wealth ranking. If PRA methods had been used then it would have made the identification much easier.

Planning for the poor

The total money available was a little over one hundred thousand rupees. It was decided that each poor family would be provided Rs.100 towards an economic activity. Individual families were asked to indicate how this money would be used along with their own contribution. Additionally a lime seedling was available to those who were interested.

Based on discussions with staff, a list of worthwhile activities was identified which could be started immediately. These were

1. Vocational Training
2. Social Forestry
3. Chalk making
4. Envelope making
5. Agricultural tools
6. Country chicks
7. Goat fattening
8. Vegetable shop
9. Snack stall

Subsequently, a number of planning meetings with representatives of the poor families were organized. Approximately 80-100 individuals were invited. Each meeting lasted about 3-4 hours. The meeting started with an introduction to the programme and the plans that RUHSA staff had made. Then they were broken up into smaller groups to further discuss and identify what would be most useful and relevant for them. Following a good meal, the groups came back and presented the group findings.

Surprisingly, except for two benefits, providing a goat or agricultural tools for the poor, they considered none of the other benefits identified by the staff, relevant. Interestingly, one of the areas of support requested by one of the first groups was to help them repair their thatched roof. They indicated that the average life of a thatched roof was only 2-3 years and changing the roof was a recurring expenditure, which they found difficult to meet. RUHSA staff had not come prepared for such a major request costing about Rs.2000-3000. RUHSA staff sought for time. After discussions it was decided to put it up for discussion in the next meeting assuming the next group will over rule this request.

When this request was presented in the next meeting there was a most unexpected surprise concern was expressed by RUHSA at the cost involved. This point was discussed in the small group meetings. After discussions during their presentations many said that this was a worthwhile request to be seriously considered by RUHSA. However they went one step further requesting that instead of thatch, tiles should be considered almost at double the cost of thatch. RUHSA was stumped. There was no opportunity to call for time off. A decision had to negotiated with them. They presented their arguments very clearly. If thatch was provided at a cost of about Rs.2500, it would last for about 3 years. However if tiles were provided at about Rs.5000 then it would last about 30 years. Their economic reasoning was valid and they won the day. This was community participation at its best.

Tile roof provided to a poor family

Providing tiles for roofing was the most rewarding programme as far as the poor were concerned. Choice of beneficiaries was somewhat difficult. However, based on experience, certain norms were established. It was observed that the houses of the poorest were also the smallest. In the initial round it was started with houses having plinth area of 10 feet by 10 feet. This was increased to 10 by 12 feet and later to 12 by 15 feet. By the time one reached anywhere near 20 feet one realized that one was not dealing with the poorest and the scheme naturally stopped with funds also drying up. Also as time passed, it was difficult to differentiate between need and greed.

Among other economic activities considered, the largest number received female goats. This was based on the Rs.100 available per family. With matching amount provided by the family, they bought a goat. Those who had no money to match were given a free goat with the condition that they return back a female goat to be passed on to another poor family.

As time went on other programmes were dovetailed into this activity. Therefore a few received cows from a different project. The poorest of the poor found it difficult to take care of a cow as a first economic activity. During the milking period it was all right. But during the dry period, feeding an unproductive cow in anticipation of the future was very difficult. The cow competed with hungry children for the little money they earned from labour. The children won but at a real great cost to the cow, which was difficult to subsequently recoup.

A number of families opted for small businesses. These included preparing and selling breakfast dishes, buying and selling vegetables, fruits, dry fish etc. Some even sold sweets and other edible items to school children.

Programme Response

Once RUHSA started distributing the benefits, the original planning process took lesser time and instead one gave time for beneficiaries to share their experiences. It was almost like a testimony meeting in a Christian church. An elderly lady with a hunch back came forward to the mike. Bending over with support on her walking stick she took the mike and thanked for the Rs.100 given to her. She used it to buy some candy and local fruits and sold it to school children. She earned about Rs.2 per day, which she gave to her son's family. She was happy, satisfied that she was not dependent on her children, and that she could contribute even a little to the family kitty for her food.

Then a lady from one of the villages came forward. Taking the mike she narrated how this programme helped one of the beneficiaries. That beneficiary received a goat. She took care of it well. However one day she died quite unexpectedly. She had no one to help her. The community got together and decided to sell the goat and meet all her funeral expenses. They felt even in death she was not a burden to the community although she was poor.

On a later occasion another lady came forward and narrated her experience. "I lived in a thatched house. RUHSA helped me to change to a tiled house. One month after I changed the roof, a marriage alliance was proposed for our daughter. The boy's relatives came to see the bride. I overheard a conversation among them 'if these people are living in a tiled house then they must be from a good family.' The proposal was immediately finalised".

In one of the field visits a home of a deserted leprosy patient was visited who was forced to live outside the village. Earlier she had received Rs.100 worth of country chicks. She said that she had reared them well, made a good profit, and started next a brood of chicks. She showed us the roof that she had repaired with sugar cane waste using the money she earned.

Another family received a goat under this scheme. She gradually increased the flock of goats and when she had enough she sold them and used the money to build a good house.

Equity was considered an important value in providing services for the poor. One of RUHSA's major activity continues to be healthcare delivery. Within health, maternal services for safe motherhood receive the maximum

support with subsidized care at the primary and secondary level. Tertiary care is available at the parent institution but is costly and the poor cannot afford it. A programme was worked out so that when a pregnant woman completes her antenatal care fully at the primary and secondary levels, then if she needs any help at the tertiary level, payments were based on the ability of the individual to pay. Since all families had their socio-economic status computerized, using a few indicators such as availability of land, type of roof, and occupation would roughly indicate the paying capacity of the family. Although the poor are frightened to go into the costly tertiary hospital, the scheme has worked so well that they have become more confident. For a bill ranging from about Rs.8,000 to Rs.10,000, poor patients pay anything from Rs.1,000 to Rs.1,500. This is one area corporate and private hospitals can definitely adopt for a few poor patients and provide subsidized care at a rate that the poor can afford.

The poor definitely need planned support. This has to be done proactively, as left to them, they will not come forward to receive any of the many benefits available. Usually in the name of the poor, the better off try to get their benefits. If a poor patient is embarrassed even once in setting a bill that he is unable to pay, the next time when he needs medical help he will not come, sometimes choosing to die rather than be embarrassed again.

With subsidized health care and vocational training by RUHSA backed by fairly good and free education being provided by the government, the poor have utilized the opportunities and have improved their living condition. With some of the children studying well and getting into high paid jobs, the condition of their poor parents have significantly improved. The subsequent programme of Self Help Groups for women covering over 5000 families development of the poor has been placed in a sustainable process.

14. EMPOWERING WOMEN THROUGH SELF HELP GROUPS

A woman was brought in an emergency condition to the RUHSA Health Centre. She was unconscious and she needed immediate attention. On arriving at the clinic the doctor was informed by the relatives that this woman had accidentally fallen into a dry well. Her condition appearing critical, she was immediately started on an intravenous drip. Within a few minutes she opened her eyes and uttered these words, "Doctor my husband beat me with firewood and pushed me into the well." She was one of the fortunate who survived to tell the true story. Many more women could have died due to 'accidental' fall into a well.

Violence against women is only one form of oppression. One of the common scenes frequently witnessed earlier in rural India is of a family walking on the road. The mother would carry the child on her waist, carry a somewhat oversized bag in one hand and occasionally even balance a fairly big box on her head. Her husband? He would be walking like a lord a few steps in front of her swinging both arms freely.

Emancipating women from such oppression had been one of RUHSA's targets. Yet women's development had been one of the most checkmated or unfruitful programmes in RUHSA's history till the last attempt. Most other programmes with reasonable planning and adequate inputs would take off in a reasonably successful manner. It was not because of either lack of money or human resources that this programme floundered. To begin with, there were equal men and women development workers. There was one full time officer in the beginning of the programme responsible for planning, implementing and monitoring the women's development work. Later on, almost

Mr. Dharmendra PradipYadav, Additional Collector, Vellore, and Mr. Devakumar, District Coordinator Canara Bank, Vellore, and Mrs. Manimegalai Assistant Project Officer, Tamilnadu Women's Development Corporation a Strongs supporter of SHGs at Block Level Coordination Committee meeting

unlimited money was available for this programme. Yet it always appeared as a futile exercise within an otherwise successful RUHSA programme. Understanding the reasons could be helpful in other similar situations.

One of the earliest strategies adopted was to organize Mahila Mandals (MM) or women's organizations. As one looks back at this attempt there was no plan or purpose other than meeting together. Not only among women but even among men when they met together without any clear direction or purpose, then over time they too frittered away. Considerable time used to be spent by the Female Rural Community Officers (FRCO) to organize Mahila Mandals. Then they would take considerable time motivating them to work together as a team. Then they spent considerable time in strengthening whatever remained of the MM. And finally when it started disintegrating, then they would go to revitalise the MM. When all this effort was subsequently reviewed, there was nothing tangible to show for all the efforts made by RUHSA.

Therefore in desperation when the Women's Development Officer left, the Female RCOs (FRCO) were transferred under the responsibility of a doctor. By this time from 18 FRCOs it had come down to just five. Within a few months even these five became only three women. Therefore the three remaining FRCOs were entrusted with three different responsibilities. On was responsible for education programmes, the other for nutrition and the third for women's economic activities. Soon afterwards, the FRCO responsible for nutrition got a government job and left. The one in charge of education also did a number odd jobs and sometime later she too left for better prospects. Finally, even the only one left was so satisfied with welfare and rehabilitation work that there was no one responsible for women's development from the original lot of women responsible for women's development.

Having mentioned so much about failure it does not mean that no efforts were made. One of the active inputs was to get an economic programme for women going. Three major activities were tried. There were some interesting experiences. The first major activity was to stitch uniforms for class 4 employees of CMCH. It was a big order. A large number of women and men tailors were employed. There were some procedural delays before the cloth was bought and given to us. In the meantime regular measurements were taken. When the cloth did come and the tailoring work was over and the materials delivered to the individuals, some brought back the trousers saying that it was too tight. It was embarrassing as the background of what happened was studied and it was surprising, to note that the complaint was mostly from the dietary department. There was no argument or even trying to find out the actual reasons. The work was modified but further orders were lost.

Another area was in making paper envelopes especially for the pharmacy. Few young girls and married women were trained in this new skill and they started the work. Just being part of a group like this itself empowers the girls. As the programme got going, one of the young girls got married. Having gained some freedom in the group, she missed this in her husband's home and within three months she ran back to the group. It began to be realized that there is a need to be prepared for both good and bad effects of even a good programme of ensuring some money in women's hands.

In the year 1983 some of the women got together and decided to make pickles as an economic activity. This was organized as part of a set up called Women's Industrial Centre K.V.Kuppam (WICK). By the end of the financial year, RUHSA managed to sell just one bottle of pickle. Subsequent sales came into the next year's account and had not been audited. This one bottle of pickle became the first non-medical item sold through CMC, and created so much problem in deciding to hive off RUHSA from CMC.

Just about this time in 1983 a major funding was received for women's development. It involved a larger lay out of personnel and once again a new leader was chosen for this activity. Being from the city background there were constant value conflicts with the rural women. Feminism and women's development became polarised. The community was not prepared to accept some of the suggestions made towards equality of men and women in a family. The community was encouraged to divide all activity 50:50 between men and women starting from child care, cooking and washing clothes. The pace was too rapid for the community and it did not proceed further. Further, just about this time, there was a major crisis in RUHSA. New programmes not well established and those that had not get into routines fell behind and women's development was again hit badly.

There were many more activities included in this major funded programme and every effort was made to achieve these. The other activities included organizing Mahila Mandals. Again they met with the same result as the earlier experience. There were 3 day orientation courses for women. Additionally there was non-formal education for women lasting 3 months. Economic activities were continued and new ones attempted. Bias for women was introduced in other programmes. Although a big report was submitted there was no denying of the fact, the report had very little to justify the money spent.

One activity started around this period, which has continued even today is what is called, "The Women's Bank". Basically it is a savings and credit

programme. Initially it was started for the health volunteers, hoping to expand to others as well. Initial attempts were made and a few non volunteers did join. But, operational problems has made it remain within the health volunteers. To them it has been a good source of micro-credit.

Another activity, which had to be held in abeyance, due to the internal crisis, was a big milk chilling plant. Much of the money received was kept aside. When it was realized that in the changed circumstances a milk chilling plant was not feasible, the grant was modified with the funding agency's permission to cover credit unions, which were in vogue at that time. As one had to learn from others' experiences, it was slow to pick up. There were no clear experiences available on the training required for a successful credit union programme. Further success of an activity like this required considerable night work, which was not easy. So again one more attempt at women development ended in failure.

Even as these organizational changes were taking place, there were also changes taking place at the community level without much fanfare or pressure from outside. The joint family was breaking up. More than any development, this one sociological silent revolution has brought more freedom and power to women than any other effort for their development. In educated homes, when a son gets married even before any conflict sets in the young couple is soon established in a new and independent home. Similar changes have also taken place in the villages. Soon after marriage usually based on the initiative of the daughter in law, the new couple find employment for the son a little far away. Soon they find a new home and they are gone. It is not that this change is without its problems and conflicts. However it is placing the power struggle between the mother in law and daughter in law in a new setting. The loser is the older mother in law. Suddenly they are caught in a dilemma. They do not have the authority their own mother in laws had over them. They were not prepared for this change taking place so unobtrusively. Some who have reached old age find that the old pattern of the son taking care of the parents in their old age has also vanished. Social and development workers have to address this problem, so that future generations are able to find an acceptable pattern of living.

One of the issues that came up at this time was one on terminology. Always this programme had been referred to as women's development. But in the international scene the terminology was shifting to gender development. People naturally expected us to change into the new nomenclature. On analysis, it was realized gender development is similar to reproductive and child health (RCH). Conceptually RCH means meeting all the reproductive health needs of

women. But in practice its focus remains on family planning and reproductive tract infections. Similarly gender development tends to dilute the focus of women's development and so RUHSA has retained the old nomenclature. Of course, each new area is addressed according to its need as RCH, female infanticide, Self Help Groups etc.

As the old millennium was coming to a close, the programmes of development of women in RUHSA entered the fifth phase. By God's grace and the hard work of staff for the first time RUHSA was beginning to see a difference from the earlier programmes and a reasonable measure of success has been achieved. The following story illustrates the potential of the Self Help Groups in the development of women.

In the village of Mudinampattu, a young boy and girl fell in love. It was well known to the community including the parents. When he was ready for marriage the boy decided to opt for a very better alliance from the city. The girl's parents complained to the police. But the boy managed to escape from the police control and hid himself. The mother complained to the group. When the women numbering over 100 went to the police they tried to wriggle out of the situation. The women identified where the boy was hiding and brought him to the village. It was midnight when the negotiations were complete. Taking the couple to the village temple behind the police station the women solemnized the marriage of the young couple who are now happily married. The factors contributing to this level of achievement is described in greater detail as this could contribute to sustainable approaches anywhere.

A few weeks later a Self Help Group from a village nearly 100 Kms came to this group seeking their help to solve a similar problem in their village. Although they had only recently achieved something remarkable suddenly they felt incompetent to solve a similar problem in a far away village and were reluctant to go. However, based on relentless pressure from the group the women yielded. They went over to the village where the problem was being faced and over a short period they solved the problem in a very satisfactory manner.

This programme was the first time that the government was actively working with the NGOs. This programme is actually modeled after the Grameen Bank from Bangladesh. In Tamilnadu, the International Fund Agriculture Development (IFAD) initially introduced this pattern. In the first phase, this programme of Women's Self Help Groups (SHG) was tried out in five districts of Tamilnadu. Being successful, this was extended to the whole state. Therefore Vellore district was selected and K.V.Kuppam also got selected. IFAD had

Mr. Ashokan leading a group of SHG animators at Block Level Coordination Committee Meeting

originally insisted that all funds must be routed through the NGOs in programme implementation. The Government role was only to monitor and ensure that the NGOs completed the stipulated work. Being successful, when the IFAD funding was over, the Government of Tamilnadu continued this as the second phase. NGOs implementing a government programme monitored by the government was the first successful strategy.

Before the second phase was started, the government reviewed the first phase very thoroughly. Unlike other programmes where some government officials would carry out the review, here it was entrusted to a group of six NGOs who were actively involved in the first phase. Although RUHSA did not implement in the first phase, because of our earlier role in training, our representative was also involved in the review. Being very systematic and done at the necessary pace rather than in a hurried manner with short deadlines, this process identified the strengths and weaknesses of the first phase. The necessary changes were incorporated into the second phase.

One of the key factors identified, as having contributed to the success of the first phase was the training provided to the women. Therefore in the second phase this was very clearly systematized. Knowledge and skills were necessary for successful functioning of SHGs. The modules, the sequence, the objectives of each module, and the training methodology were clearly identified. In fact, of all the programmes on SHGs in India, the training programme introduced by Tamilnadu is the most extensive. The modules needed by the members and animators respectively were also identified separately.

The training process was also clearly spelt out. There were trained trainers at all levels. Initially there were the Master trainers selected by the government to train the NGO staff. Only such trained staff could further be involved in training at the community level. The training methodology itself was very participatory. Lectures were kept to the minimum. There were many games used for learning. There were skill based exercises. In general, there

was a wide variety introduced into the training. The government staff attached to the programme office at the district level regularly monitored the training programmes.

The other two related factors identified as important were regularity in attending weekly meetings and the need for regular savings. Only those who commit to these two primary requirements can become members of the various groups. It is almost like the Rotary International. If a member misses more than a certain number of meetings without proper clearance from the group, the member could be asked to discontinue. In some groups fines are collected for non-attendance. The importance of these two are emphasized in so many ways that only very few miss out on these.

Finally the success of this programme requires the commitment of the NGO staff involved. If women need to meet regularly then only evening and night times are convenient. It then means staff must be committed to attending and monitoring meetings at night. By God's grace the right team leader was allotted to this task and over time he was able to motivate the staff working with him to go as often as was necessary to the villages at night time and provide the support needed. If this process did not take place, then all other inputs would have been in vain.

Another principle that began to emerge was the relationship between meetings, savings, and loans. The meetings were one means of social empowerment of the women. Training was the next step in social empowerment. Savings were the first step in the process of economic empowerment. Loans both from their own savings as well as from the banks became the next step in economic empowerment. It was important that social empowerment took place adequately before economic empowerment was started. When working as part of a large set up some general norms are applied. At times when a group has not completed the social empowerment process and if more money than they can handle is provided, it tends to lead towards failure.

Building in monitoring right from the beginning is an important management input necessary. There are three major activities involved which require timely feedback and reporting. These are the number of new members joining the SHGs, the amount of money saved by them, the amount of loans taken, both internal and external with the purpose of the loan. If this information is not recorded properly right from the beginning, when the work load increases it becomes difficult to get accurate information. In fact if resources are available, then these information should be computerized from the time the project is initiated.

Monitoring and support at the community level is also very important. Staff who are involved at this level need tremendous motivation and support to provide this input. As indicated, one of the most difficult part is the need for right supervision. Without this input the growth of the individual group is at risk. During these visits, the women need support in writing regular minutes, writing up-to-date accounts, including savings, loans, repayment of loans, review of the progress of any income generating activity etc. It is growth in this area that has given confidence to the women animators as well as the members.

Auditing of accounts is another important and vital activity. This ensures that the accounts are well maintained. Since the groups are handling public group money, this needs to be ensured in a timely manner. Both internal and external auditing is provided. The internal audit is provided by RUHSA. We have linked up all the groups with an external auditor who regularly gets the work done. However in the beginning, it was not easy.

Grading of groups is the other activity that comes up when there has been sufficient increase in the growth of the groups. This is done at two levels. In the first process, staff members from the NGOs are deputed by the Government to carry out the grading. A team of government officials, from District Rural Development Agency, Women's Development Corporation, Banks, Block Development Office and NGO carry out the other level of grading for extended lending with government. Grading is done initially for measuring growth and comparison across NGOs. The other purpose of grading is to verify suitability for providing bank loans. The growth of the SHGs promoted by RUHSA is shown in the following table.

Table : Details of Self Help Groups (SHGs)

Year	Groups	Members	Savings	Internal Loans	External Loans
1998	118	2191	3,77,000	75,000	-
1999	55	1251	12,08,000	19,16,000	8,23,000
2000	88	1578	23,96,000	7,16,600	1,09,46,000
2001	21	448	24,35,000	1,17,12,000	1,17,10,000
Total	**282**	**5468**	**64,16,000**	**1,44,19,000**	**2,34,79,000**

What the women can achieve are united is illustrated by some of the successful experiences of one group of women. Vasugi Self Help Group is one of the most active groups at present. Initially, the group got a revolving fund loan of Rs.25,000 from the bank with Rs.10,000 as subsidy from the government.

15 women took loans from this. Once they had revolved it, they were able to obtain a bigger grant of Rs.200,000. With this amount, the group took three acres of sugar cane land on lease for three years. After paying for the lease and all the other expenses involved, the group was able to make a profit of Rs.20,000 from the first harvest. In addition the women shared the labour costs for weeding, cutting sugar cane, and making jaggery. One woman was entrusted the responsibility of regular watering for which she was paid additionally.

Because of the social empowerment provided earlier, the women were also able to handle social problems effectively. A young woman from their village was given in marriage to a man in a distant village. Then it was realized that the man was diagnosed as HIV positive. The man's relatives blamed the woman as the cause and sent her back. However the husband came and took her to his home. Soon after this, he died because of AIDS. The relatives would not allow her to even grieve over her husband's death and packed her home.

On the request of the girl's parents the group took up the problem. First they visited the free legal aid cell. Following correct legal procedures the court awarded 25% of the husband's property to his widow. Anticipating problem from the relatives, the group has now supported the appeal to the court to permit the sale of the property so that she could have land close by.

They have been additionally involved in other community action programmes as well. They are actively promoting the enrolment of children in schools. They award prizes to children for special programmes. To back it all they effectively participate in the Parent Teacher Association meetings. They have contributed materials to the children in the Balwadi or village creche. They have also organized or helped in eye, leprosy, anemia and general medical camps, as well as in distributing iron and folic acid tablets to adolescent girls in the village.

Their social might as result of uniting together was manifest in overcoming a major environment problem in the village. Their village is beside the Palar river. Sand quarrying is a common practice although it is tightly controlled. A group of people backed by political support, were indiscriminately quarrying sand. Their appeal to them fell on deaf ears. They appealed to the higher officials. Even this did not help. As this was affecting the water table, one day when many trucks went into the river bed to fill sand all the women got together and made deep ditches along the pathway preventing them from going back. Finally the owners had to apologize, unload all the sand and only then could they take back their trucks.

The hardest part of the women's development through SHGs were in establishing income generation programmes (IGP) by the women. There were two categories of IGPs. These were individual and group IGPs. The first category was easy to handle but defeated the purpose of SHGs as only individuals took loans. The second one was difficult but really gave value to the process as it was a group process. A number of these activities are described in greater detail.

The following table shows the range of activities for which credit was obtained by all the groups in K.V.Kuppam block.

Purpose of Credit Provided

Purpose of loans	No. of Groups
1. Sheep	10
2. Dairy cattle	43
3. Small business	4
4. Cultivation	2
5. Cottage industries	6
6. Natural dyeing	4
7. Vessels hiring	2
8. Batik printing	1
9. Ambulance	1

Approximate value of loans: Rs.1,36,00,000

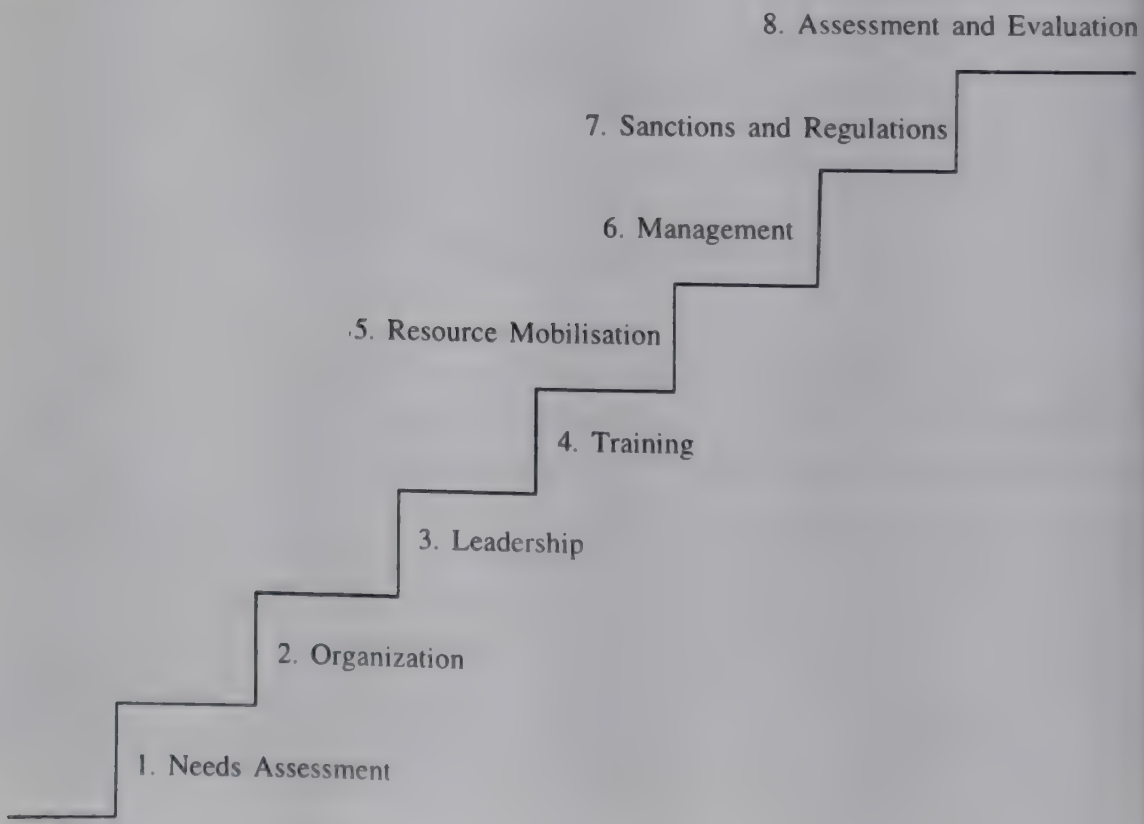
One of the most visible and enterprising group activities by one of the groups was to purchase a vehicle to be rented out for hire. There was considerable Government subsidy for this scheme. Twenty women pooled their savings for margin money and obtained the remaining as loan. This vehicle has been in operation for nearly two years. They have been regular in repaying their loans. In fact as a group, they decided that they would repay the loans before sharing from the profits. The women take turns to monitor the operation, collect money from the driver and deposit it in the bank. However one of the big problems they face is the stiff competition from auto rickshaw owners. They find the abusive language from them harder than the competition itself.

Another group received training in natural dyeing of fabrics. Being environment friendly, this was promoted. Surprisingly, there were beautifu shades of fabric created. However the cost is considerably higher than what is locally available. Therefore it could not be marketed immediately. However they were tied up with an export company and they have received the first order. They are being introduced to scientific quality control measures.

Maturity Steps

Per Eklund and others have adopted a series of maturity steps that any community based organization should go through. These are listed in the figure below. It starts with the basic step of obtaining information relating to needs of the community followed by developing their organization, with their own leaders, backed by the needed training. Further growth is possible only by resource mobilization, and proper management of the funds under their disposal. Sustainability is possible only when they are prepared to take disciplinary actions against erring members as well as impose necessary sanctions. Finally the ability to assess and evaluate their own organization contributes to sustainability. Although RUHSA's SHGs were not exactly planned in this order except the last all have been followed.

Maturity Ladder for SHGs



The success stories of the SHG programme are limitless. Here are a few of the sample. A young lady was working in the manufacture of milk 'cova' as a labourer. When she became a member, she took loan amount of Rs.10,000. She bought the necessary vessels for making 'cova' and started manufacturing the same. She is currently employing ten people under her and is getting good income from this venture.

Another story illustrates the leadership skills gained by the women. In 2001 the women of Melmoil village decided to celebrate International Women's Day in their village. They invited the president of the village, and he agreed. Other village leaders were also invited and they all accepted. On the day of the meeting, he sent word that because the chairperson above him, but living in another village was not invited, he would not participate in the meeting. One by one all the leaders in the village said the same thing and none of them came. The women were in a quandary. They decided to use their own women leaders and conducted the programme without any hitch. The leaders were surprised at what these women could do. However, the women had not forgotten the insult. Few months later the election came around. The leader went to the women asking them for their votes. They asked him to please go and bring his chairperson to seek votes. That leader was defeated in that election.

A lady from the village had to go to town. When she got down from the train she had to move over to a local bus to reach her destination. Since this lady was attractive a male passenger gave money to the conductor for the ticket both for himself and the lady. The conductor curiously asked the lady who was this man who bought her ticket. Immediately she got up asked the conductor who the man was. The man tried to hide himself and got off at the next stop. The conductor complemented the woman for her courage and asked her how she learned to be so courageous. She explained how being a member of the SHG helped to be bold.

Another story comes from a drunkard's family. Every day the man spent a considerable part of his earning on liquor. The wife desperately wanted him to change the habit. She was not succeeding. One day she decided to break the bottle of liquor. When the husband came she told him clearly to choose between her and the bottle. She told him she was prepared to be thrown out of the house. Having said this she was scared deep inside that her husband would really throw her out. Instead at this time he accepted her. She explained that she received this courage from the SHG.

The success stories in how the women have controlled illicit liquor trade is a testament to what women can do when they are united. In the area

of Bharathi SHG Federation formed by 8 groups there was a lady who was selling liquor. The women approached her to stop the business. She said that if all the women asked she would stop. So on pressure from all of them she stopped selling publicly but shifted the business inside her home. The women went and broke all the vessels used for making liquor. She complained to the police against the 8 animators accusing them of stealing her jewels. The police sent for the 8 women. However the entire group of nearly 150 women went to the police station. Inquiries revealed the false accusations. In a sprit of forgiveness and to ensure that the woman got out of this trade in the presence of the police, they took her daughter as a member of the group and they invited her along with them to go for labour work in the fields.

Promoting leadership has been identified as one of the steps to maturity in a group. RUHSA had been promoting leadership qualities among the women. The village level elections was an opportunity for them to show their capabilities. Almost in every village women stood for election to different posts. Out of 76 posts for which they stood for elections, they won in 36 posts. Among these were one District representative for 20 villages, two were counsellors responsible for two villages each, and three were presidents of villages. There were a total of 30 ward members elected. This was the strongest means of sustaining the development initiated through the SHGs.

Training has been an important component of the programme. However, for various reasons, the government discontinued the programme sometime in the year 2000. This began to affect the morale of the groups, primarily members as well as the animators. Dialogue is going on with the government to avoid diluting the training programme.

Marketing is another area of weakness. However, again in this area, the women have been provided an opportunity to establishing a gift and flower shop in the main hospital at Vellore. Three more additional shops have also been given to the women. More opportunities in marketing should help them develop this vital skill needed for greater competition.

In studying the initial impact of the programme, it was identified that women were bold to speak in front of their husbands and to leave their home alone, as well as being respected more in the family. Self-confidence, initiative, emotional stability and contentment were increased. They regarded that these changes are taking place due to their being in the SHG, their husbands' support, and the training received.

Interestingly women identified their being able to go out alone as one the major outcomes of this programme. Their ability to go to the bank and draw money without going to the money lenders and the confidence with which they can approach higher officials also stands out as significant. They also feel that there is increased co-operation among women. If the present pattern of support continues, they believe that they can be on their own at the end of five years in a sustainable manner.

15. WELFARE AND REHABILITATION WITHIN DEVELOPMENT

On June 1, 2002 a young girl came walking with a mild limp into the RUHSA office. She submitted an application for help. On going through the letter she stated. "I am a handicapped girl who was helped by RUHSA. I had polio paralysis and in the camp conducted in RUHSA in 1985 I was selected for rehabilitation services. RUHSA staff helped me to have corrective surgery by specialists, I was given some aids for my deformity. Then they helped me with getting bus pass and a scholarship to study in a school. Now I have completed my secondary school with 55% pass marks. Kindly recommend me to College of Nursing of the Christian Medical College so that I can be selected for the Diploma in Nursing course".

What a joy and privilege to see the rewards of an apparently insignificant camp that was organized 17 years earlier. Whoever thought that young handicapped children would be on their own, and with a little extra support would compete with healthy children and catch up in life? Planning and implementing a comprehensive programme of rehabilitating handicapped children has been one among many satisfying experiences working in RUHSA.

Welfare services are considered anathema of development. While development talks about helping the community to help themselves, welfare services are considered as charitable services and therefore create dependency. So organizations implementing development programmes keep welfare activities on a low profile. As time went on it was realized that there were genuine areas of welfare that the community needed. Additionally it was also realized that in a welfare state the government has set aside some resources for people who needed these services, and in the community there were people who needed these resources.

In a systematic way the resources and the needs were brought together and over a time it became one of the highly sought after service of RUHSA. Then it was observed that actually there were two different types of handicapped individuals. The first was the commonly acknowledged individuals with physical handicaps. The other category is now defined as those socially handicapped. The way services are provided to each group is different.

Basically physical handicap refers to deformities to the physical body either congenitally or acquired. Congenital deformity is best illustrated by club

foot or talipes equines varum. Acquired physical handicap on the other hand is illustrated by the deformities that follow the paralysis caused by poliomyelitis, or blindness due to injury or infection.

The problems seen in the social area relate to those that happen because of class, caste, or even due to changes in the family structure. The marginalized communities referred to as Scheduled Castes and Scheduled Tribes have an inherent social disadvantage as the higher castes have traditionally looked down upon them and denied them some of the common privileges available at the community level. Similarly when a man dies leaving his wife a widow, very often in society they do not command the same respect they had when their husbands were alive, especially if they are young. Similarly, the problem faced by the elderly today also require special efforts to help them. So concerted efforts are needed to help them catch up with the rest. Responding to these special needs in a systematic manner contributed to a significant input in the lives of those affected.

During the baseline survey carried out in 1978, physical handicap was enumerated. Subsequently a paediatrician visited and examined all of them and specifically confirmed those due to poliomyelitis. In 1979 there was an active surveillance of all new cases of poliomyelitis in the block. In 1986 all handicapped were identified in K.V.Kuppam Block. Later again in 1992 when the population data was updated all handicapped individuals were identified.

What this data showed was that each year roughly 29 new cases of polio were added to K.V.Kuppam block in addition to the 247 individuals with residual paralysis already enumerated at the time of the baseline survey estimating a prevalence of 2.56 per 1000 population. With no advanced surgical rehabilitation service available then most children were either admitted in charitable hostels or were idling at home.

Then RUHSA introduced a comprehensive programme to overcome the deformity due to poliomyelitis. A very strong programme of immunization reduced the incidence of new cases from 29 in 1979 to 0 in 1988 long before pulse polio was introduced. Since then, very few new cases have been added.

A camp was organized for all physically handicapped children in RUHSA campus in 1985. A team of professionals including a paediatrician, an orthopedician, and a rehabilitation specialist examined every child. Each one identified the need of each child. At the end of the day, the three of them sat and consolidated their findings. The children were divided into those that did not need any support, as the handicap was very mild. There were some

who needed only aids and appliances. Then there was a category that needed surgical correction. Finally there was a small group that needed both surgery and aids and appliances. Over the next three years all the recommended services were provided to every one. Additionally social rehabilitation was also provided especially with all the support needed for schooling. The severity of the paralysis and handicap is shown in the following table.

Type of Severity of Paralysis

Severity	No.	%
Grade I *	12	17
Grade II **	19	26
Grade III ***	34	47
Grade IV ****	7	10
Total	72	100

* Needs no surgery/appliances

** Needs surgery/simple appliances

*** Needs surgery and caliper/upper limb affected

**** No surgical correction is possible only tricycle/wheel chair for ambulation.

It was a tremendous change that this approach brought about in the community. For instance, children who had one lower limb paralyzed, had their knee joint fused by a simple surgery. The fused joint made the lower limb function as a stump. Children were able to move around freely and even started attending schools from their homes. The combined effect of immunization wiping out all new case of polio and the rehabilitation programme meant that all cases of

Tricycles distributed to handicapped individuals from K.V.Kuppam block

paralysis had been effectively rehabilitated. Through this comprehensive approach, the physical and social problems caused by polio have been completely eliminated. Whoever thought this was going to happen when RUHSA was started!

A total enumeration of all type, of handicap was carried out in 1986.

The following table shows the type of handicapped in K.V.Kuppam Block.

Types of handicapped in K.V.Kupam 1986

Type of handicap	No. of cases	Prevalence per 10,000
Orthopaedic cases	486	46.9
Mental illness	121	11.7
Blind	87	8.4
Deaf and dumb	146	14.1
Elephantiasis	39	3.8

The next issue to be handled was to make this sustainable. Initially all Family Care Volunteers were trained to identify the common physical handicaps in the community. Young children were encouraged to attend schools either in hostels or through facilitating bus passes. Whenever possible they had been linked up with income generating activities. More recently Self Help Groups of women have started organizing village based camps with experts visiting and providing the necessary remedies and follow up.

To make the government resources even more readily accessible to the rural communities, the Government has established Rehabilitation Counselling Centres, including one at RUHSA. All government resources are now being routed through these centres and in this way the government has made rehabilitation more easily accessible and available.

The following table shows some of the social welfare activities provided. Except for the heart surgery all other programmes are provided by the government and therefore are applicable throughout the state. RUHSA succeeded in helping the people by overcoming the obstacles of getting the benefits to the people.

Various welfare benefits provided

Benefit	1998	1999	2000	2001
Old age pension	19	11	40	22
Heart surgeries at CMC	24	24	12	34
Widows remarriage	2	-	-	-
Orphan girls admitted	3	6	2	3
Orphan girls marriage	-	1	-	-
Educated girls marriage	9	1	1	1
Tubectomy with 2 female children	67	61	57	75

One would have thought that with so much need and so much resources available with the government that many would have got the benefits. When RUHSA staff started helping the people the surprising bottle neck identified was that people and sometimes even the officials did not know which form belonged to which benefit. If a benefit was sought for in the wrong application, benefits were rejected. The people were not guided to the correct form. Obtaining the correct form was the first principle that operated in most offices. Further, the offices did not probably have more than one application and so no spare copies were available. The second understood but unstated principle was xerox your own application. RUHSA's success was in linking up the correct application with its benefit. Then each application was cyclostyled and a number of copies were available and kept ready for anyone. After submitting the application follow up also has to be done in a systematic manner.

As RUHSA gained more experience, information on all the welfare schemes, reconsolidating and indicating the correct format of application and which office handled each application. NGO participants of RUHSA's training programmes were most happy with this information as they faced similar problems as RUHSA had faced earlier.

Another major welfare activity was obtaining financial support for those needing heart surgery. Being a costly surgery, the poor could not afford this. Therefore smaller contributions were obtained from different sources. There are also relief and welfare grants available from the relief funds of the President of India, the Prime Minister of India and the Chief Ministers of the respective states. There are also other philanthropic organizations that provide grants for such services. Combining all the grants and with a small contribution

Mrs. E.Vijayakumari, receiving the National Award as the Best Placement Officer from His Excellency The President of India Shri R.Venkatraman in 1990.

Dr. Benjamin Pulimood along with the Collector of Vellore Ms. Malathi during the visit of the Advisor to Governor of Tamil Nadu Mr. S. Siddhu.

With Mr. Mony of SHED, Mr. Ajay Tripathy, Executive Director of Orissa Voluntary Health Association and Dr. Sahoo, State Malaria Officer during the inauguration of RUHSA Orissa Anti Malaria Programme in July 2001.

by the patient, the main CMC hospital at Vellore writes off the balance for those in the project area. What an opportunity it would be for the poor if every corporate hospital, on a similar principle would provide essential high cost, high technology services!

The officials at the district were watching what was happening in K.V.Kuppam block in Vellore District, as this block was topping the district in all the welfare services. Therefore they decided to suitably recognize RUHSA's work. And so in 1990 they nominated Mrs. E. Vijayakumari, the co-ordinator of this programme for the National Award as the Best Placement Officer for her committed work in enriching the lives of many who needed welfare support. She received this award from the Honourable President of India Shri R. Venkataraman in the year 1990.

Probably one cannot eliminate all handicap as was done with paralytic poliomyelitis. But with continued Government welfare support, backed by those of private philanthropic organizations, others along with RUHSA can mitigate the suffering of handicapped individuals. Welfare of the handicapped can only be sustainable in part. The beneficiaries will need sympathetic support from officials of both the government and non government sectors. Unlike economic development this area of human need will continue to depend upon the government and other philanthropic organizations.

16. ENVIRONMENT FRIENDLY APPROACHES

If sustainability is about the future then protection of the environment s probably the most sustainable activity any development organization could provide. This is more easily said than done. In spite of significant efforts at improving the environment there is so much that needs to be done in this area that success may continue to elude us. There are five areas that stand out when environment is mentioned, namely water, forests and tree cover, sanitation and hygiene, fuel and unbridled population growth.

Water Quantity

K.V.Kuppam is a drought prone area. Drought comes in cycles and the population has always been under risk of hunger and under nutrition. Agriculture is based both on rainfed and irrigated crops. With each round of drought the farmers would dig their wells deeper and deeper. This began to result in a steady pattern of depletion of underground water and the water table is going down unmanageably low. Maintaining sufficient quantity of underground water becomes a priority. Drought often is not absolute. The rains may fail when the plants need them most resulting in stunted growth leading to low yield of crops or even to the extreme of destroying the crops completely. On the other hand farms that have irrigated land would plant crops that utilize water intensively. To be environment friendly there was a need to change this cropping pattern so that the demand on the water from bananas, paddy and sugar cane would come down. The three alternate crops identified were jasmine, mangoes and mulberry for sericulture. The details of each area of them is described elsewhere.

Jasmine yielded flowers which became a regular source of income to the farmers. Mangoes on the other hand provided shade cover for the land in addition to income with minimum hassle of labour. With hundreds of acres coming under mango cover the temperature also came down. In the height of summer or winter K.V.Kuppam is about 2 -3 ^{0} C cooler than Vellore town and its suburbs. Anyone can easily feel the difference in temperature while driving out to RUHSA at mid day.

When other approaches than just water saving crops were considered, promoting live stock was identified as one of water saving generator of income. The two major live stock promoted were dairy cattle and broiler poultry. In 2002 the Silver Jubilee year of RUHSA there is a severe drought. However, because a large number of poor families own cows they are confident of tiding over the drought although they will miss additional income from agriculture. Although goats also came in this category, to provide fodder for goats one has

to destroy shrubbery from common lands. Therefore, sheep was introduced as an alternative in larger numbers.

Water Quality

Ignorance of safe drinking water was a common phenomenon when RUHSA was started. People drank from open wells used exclusively for drinking or for agriculture. Besides open lakes also were used as sources of drinking water. The importance of water quality was taught to the community. Further in times of drought the sources of water were limited. In this situation even farmers with deep open wells and pumpsets would refuse to give water to the community as most of the time the water had to be supplied to the community rather than irrigate their fields.

Dr. Daleep Mukarji inaugurating a bore well at Keelalathur village in the early days of RUHSA

In the early eighties a major drinking water programme was implemented with the UNICEF approved India Mark II deep bore wells. Over one hundred bore wells were provided throughout the block. Initially the richer and influential sections of the community made sure their sections were well covered. Subsequently the bore wells were provided only to the areas with those from poorer socio economic background. This made good drinking water easily accessible and available round the clock.

With this water being pumped from over 100 to 150 feet in many places it was hard water. People along the banks of the Palar river had palatable soft water. The community was fortunate to have a minister who took efforts to pump water from the Palar river bed to the interior villages resulting in most villages having good quality drinking water daily.

Forests and Trees

If one looks at a map of K.V.Kuppam its northern boundary is marked by a range of hills through the entire length of the block. These hills are part of the reserve forests protected by the Government. There is no access to this

land. However, the mountains are barren. In fact hills without trees is one of the wonders of Vellore. Even though there were no forests on the hills, RUHSA could not get access to this land. Therefore, any forestry had to be carried out only in public land that was outside the forestland or in private farmland.

Social forestry was the area in which RUHSA could get involved. This included providing a wide variety of trees suitable to be grown in the area. For the first time Leuciana leucocephala or subabul was introduced by RUHSA in this block. It has taken on extensively. Social forestry was also promoted by the forest department in which RUHSA could facilitate community participation and motivate the community to protect the trees grown.

Watersheds were the other approach at conserving water. In terms of the total area needing watersheds, RUHSA's inputs were limited. However, the first watershed project in Thuthithangal village from 1983 to 1987 was carried out very systematically with contour bunding, contour ploughing, over flow weirs, check dams and water harvesting structures backed by growing of forest trees and mango trees. RUHSA also participated in a bigger watershed of the Government by supplying teak seedlings.

However, agro forestry was the area that RUHSA could influence without any conflict. Nearly one hundred thousand teak seedlings were supplied to farmers. A large number of jack fruit seedlings were also provided. To a limited extent bamboo seedlings were also made available as part of agro forestry. Unfortunately, in spite of every effort at getting rose wood seedlings distributed, it had been a failure. At present there are only about six rose wood plants in RUHSA Campus.

Sanitation and Hygiene

With the drinking water effectively handled by deep bore wells and pumped portable water, promoting latrines have been the next major effort. With success in so many areas, it is amazing how slow RUHSA has been in achieving anything worthwhile in this area. The real problem could be understood by the following incident.

As part of an exchange programme a young English student spent some time in one of the villages. Seeing that the family with whom he stayed were reasonably well off, he decided the only happy way in which he could help this family was by constructing a latrine. So he started motivating the family. The family members nodded their heads in agreement but gradually delayed making that final decision. When the time came for the student to leave K.V.Kuppam, the lady in the house was asked why they said yes to the student but did not

actually construct the latrine. Her response was spontaneous. " He would have been unhappy if we straightaway told him we did not want a latrine in our home. The truth is we do not want a latrine. Going out into the field suits us best". This attitude is so powerful that only about 15% of the population have latrines. As part of a Government Programme in one village through RUHSA the Government provided free latrines to every family. Over 50% did not use the latrine at all but used it as a store for firewood. Even a more recent programme by the Government is not meeting with the desired level of success. This is an area that needs significantly greater efforts at modifying behaviour in the construction and use of latrines.

Fuel

Firewood continues to be the major source of fuel in this block contributing to denuding of whatever forests that remain. Part of the fuel wood is from farm wastes. Recognizing this as a major problem alternate sources of energy were considered. An initial but feeble attempt was made at solar energy. It was not pursued long enough. Bio mass energy from cow dung was one input which was reasonably welcomed by the community.

The common biogas plants available at that time were those using heavy steel drums moving up and down a fixed cement pit on the ground. With changes in technology, fixed cement concrete biogas plants were introduced by Action for Food Production, an organization based in New Delhi. For nearly 17 years RUHSA worked together in partnerships in promoting biogas. Even within this fixed dome biogas plants there were constant efforts to reduce the cost of the plants by altering the design of the plants. The first larger size plant was called the Janata Type, while the latter smaller size plant was called the Deenabandu model. Although the size of the plant in terms of the use of cement and bricks were lesser, the actual capacity of the plants in producing the gas was similar.

Biogas is formed by allowing cowdung mixed in correct amount of water to be placed in digester tank operating under anaerobic condition where oxygen is not available. The bacteria digest the cowdung and release methane gas which is stored in the dome of the biogas plant. A pipe fitted with value is connected to the stove in the kitchen. The dung from 2 cows is enough to produce enough methane gas for an average family of 5 members to do their cooking and to heat water for bathing for one or two members. In winter due to the cold weather, the anaerobic digestion is lower and so the amount of gas produced is less. Partly this can be enhanced by mixing the dung with warm water while feeding the digester.

Biodiversity

Very early in RUHSA's work the conflict on monoculture of trees came into sharp focus. This was particularly true of eucalyptus. Except for a few instances where this was promoted, planting a variety of trees and plants has been RUHSA's focus. After the Rio Earth Summit there was some focus on biodiversity. This concept was introduced in a broad way in K.V.Kuppam. With increasing relationship between biodiversity and herbal medicinal plants and with greater demand being made, herbal medicine biodiversity will receive a greater emphasis in RUHSA.

Population

Uncontrolled growth of population has placed a severe strain on the earth's resources by the increased demand made by the increasing population. Although it was promoted as a health measure, increasing response to family planning especially tubectomy has meant that the rate of growth of the population has been arrested. This means overall the population level would be stabilized. It is anticipated that this would decrease the pressure on the land and would contribute to protecting the environment.

Environment is an area that would continue to defy the effective management of RUHSA. Behaviour modification is required in a large number of areas with increasing emphasis from the Government and the international community. Environment protection will continue to remain high on the development agenda.

17. SUCCESSFUL APPROACHES TO BEHAVIOUR MODIFICATION

Traditional beliefs and practices form one of the strongest obstacles to changes in the health status of the people. The best example is that of tuberculosis control programmes. In spite of some of the best medicines available to control the disease, and available free of cost from the government health system, it is well acknowledged that a failure to understand the social processes involved has resulted in a situation where the disease continues unchecked. The same could be said of leprosy, malaria and malnutrition.

Immunization

Within the RUHSA programme, this was well illustrated by the response of the community to childhood immunization. Obtaining vaccines freely from the Government without any cost, an effective immunization programme was implemented. While the poorer sections of the community came forward to utilize the service, the rich refused to come forward. Their attitude was that their parents had brought them up without immunization therefore their children also did not need them. When the subsequent epidemic of whooping cough hit the village, the children of poor mothers were healthy, while incessant coughing harassed the children of the rich. Further efforts were not needed to motivate the rich for immunization.

After a number of years of successful immunization, a survey was conducted to determine the knowledge, attitudes, and practices relating to immunization. It was surprising to observe that the practice of immunization was high, while knowledge on the purpose of immunization and the diseases prevented was not known to many. The situation was similar relating to family planning. Women in large numbers practiced puerperal sterilisation, but were ignorant about how any of the methods worked.

The first lesson learnt in behaviour modification was that when needed health services are provided effectively in a community based setting backed by some motivational efforts, then people utilize these services without any effort at understanding how or why it is used.

The next major effort was in handling strong cultural beliefs and practices. During the year 1979-1980, there was a major epidemic of measles in the villages of K.V.Kuppam. Mortality was also high. With over 2000 children being affected by measles, nearly 40 children died. However, hardly any child was brought to the health centre even when strongly motivated.

When inquired, it was indicated that the people believed measles was caused by the wrath of a goddess and that the people should not do anything to displease her. Therefore neem leaves were strung across the door posts indicating that there was a child with measles in that home and for people to keep away. Hardly any food, water, or treatment was provided.

The problem was discussed in great detail with the health volunteers. The entire clinical pattern was explained to them including the pattern of fever associated with measles and its complications. Then the volunteers were asked to suggest ways in which the community can be convinced to take action against measles. Their response was clear. "If we tell people to go against the goddess, the people would not respond. However, if we explain to the people that measles is from the goddess represented by the first rise of fever and if this fever subsided then there was nothing to worry. But if after the fever started coming down it rose again, then the second rise of fever is not due to the goddess but to some other serious complication. Then the people would listen. "Fortunately it was the end of the epidemic and by the end of next year we had immunized sufficient number of children to prevent any further epidemic and by the subsequent three years measles was almost completely eliminated and has never been a problem since then.

This experience had a profound influence on staff. The people were saying that culture is very strong and that it should not be opposed directly. If one wants to overcome traditional practices based on strong culture that are affecting health care, then that culture must be understood sufficiently so that the community is not encouraged to directly oppose culture, but identify ways in which they can be encouraged to circumvent their beliefs based on culture.

Diarrhoeal Diseases

Till the year 1983, RUHSA was only responding to behaviour change needs according to the problems actually faced. In that year, control of diarrhoeal disease was taken up as a specific programmatic activity. Initial available data suggested that this was also a problem based on ignorance and that a behaviour modification strategy would be the most appropriate. Unlike on earlier occasions a systematic process of planning was carried out to chalk out a clear strategy. Three aspects stood out clearly. They are preparation of messages including their pre test and rephrasing, actual methods of implementation, and finally evaluating the change in behaviour.

Valuable experiences were gained in preparing the messages. Some of the key characteristics essential for messages were identified.

These characteristics are listed below and briefly explained.

- *Simple colloquial language is more important than literary language.*
- *Positive messages have long lasting effects than negative messages.*
- *Action based messages are more readily followed than only information based messages.*
- *Specific messages have better chances of adoption than vague messages.*
- *Locally used words are more effective than scientific words.*
- *Uniform messages ensure greater participation than conflicting messages.*
- *Repetition of messages by different means are retained longer than messages through single media.*

The choice of colloquial language and words locally used are more important than the literary or scientific language. There was a problem in the message dealing with the cause of diarrhoea. The English message stated, "Diarrhoea is caused by germs." It was translated into scientifically correct Tamil words. The volunteers did not understand the scientifically correct word. They suggested an alternate word. When translated back into English it read, "Diarrhoea is caused by insects". There was considerable debate in choosing this Tamil word. However reluctantly the "wrong" word was accepted. But it was sufficiently explained so that the correct information reached the community.

It has been observed that human nature often carried out what is prohibited. Instead if people are taught to do the correct thing, rather than not do the wrong thing, it is likely to be long lasting although it could take considerable time to practice the correct habit. The specific issue was related to the use of feeding bottles. The debate was whether there should be a message prohibiting the use of feeding bottles. After much discussion this message was dropped, instead of pictures of feeding bottle with a big X, locally used bowls were pictured. Even when a feeding bottle with a big X is used, people actually see the bottle and not the X. In spite of the importance of positive messages, preparing them is not easy and requires considerable time and effort requiring team work.

It was found easier to communicate action based messages rather than only information based messages. However preparing them also was not always easy and required considerable teamwork. Further, it was also realized that all messages cannot be action based and that there is a need for a balance in choosing both type of messages.

The community based FCVs were the educators. The programme staff intensively trained them. They literally had to memorize the messages, as many were illiterate. The messages were printed on pamphlets to be distributed to every home. Review and monitoring processes were systematically followed so that correct implementation was ensured.

There was one concern relating to distributing printed messages to every home. The issue was whether everyone could read the messages. It was assumed that there would be at least one child attending school, who could read it for those who could not read. Additionally it also became handy for monitoring as project personnel could ask people to show the printed messages indicating that the volunteer had actually visited the home.

In the programme on control of diarrhoeal diseases the ultimate focus was on ensuring people used Oral Rehydration Solution (ORS) in handling diarrhoea. Preparing home made solutions were recommended. With a large number of service providers involved in diarrhoea control, each one had different measures but proportionately equal, as some prepared for one litre while others prepared for half a litre and some for 200ml. It would have been ideal if all service providers could have met and decided on a common method of preparing ORS. Since this was not possible, it was necessary to ensure that only uniform messages reached the community. First, all personnel who could influence the community were educated on the messages promoted by RUHSA. Secondly, even exceptionally well prepared educational materials that carried messages or pictures of a confusing nature were not used in the community. Excellent videos and films were thus rejected.

If people were to use ORS in their homes then it was necessary to teach people how to prepare ORS. This required teaching people a new skill. Ultimately teaching skills required that in addition to messages and pictures, demonstration and return demonstration was necessary. Therefore this required a one to one education and the necessary human infrastructure for the same. Appropriate planning and resources are necessary and there is no short cut to this process.

Success of a behaviour modification requires scientific documentation. This means a pre and post evaluation must be carried out. Post evaluation indicated significant changes in knowledge and attitudes and skills in the preparation of Oral Rehydration Solution (ORS).

The next major programme that used a communication approach was in nutrition education. Having earlier identified that nutrition education is effective in a shorter pilot programme it was decided to expand this to the total community. There were really very few skills that were necessary. Essentially, the health volunteers had to transfer prepared messages on nutrition to the community. Since there were a larger list of messages than in the earlier diarrhoea control programme, time was spent in encouraging the volunteers to memorize the messages so that they could be fluent with them.

Anaemia in Pregnancy

The next two major programmes of behaviour modification were anaemia control and HIV/AIDS. The anaemia project was well planned, funded well and was time bound. As funding agencies did not feel the need for educating the community on HIV/AIDS, no agency provided funds for this. Therefore the HIV/AIDS education was more drawn out in time, as well as this being personal and sensitive, it was also difficult.

In the anaemia control project, the focus was to ensure that pregnant women were taught the concepts of anaemia so that they would register early for antenatal care and consume at least 120 tablets of iron and folic acid tablets during pregnancy. Again the process started with preparing of messages.

This was followed up by preparing a booklet on anaemia. The booklet described each message in greater detail. It also provided an opportunity to explain those negative aspects which were not covered in the messages as only positive aspects were included in the messages.

However, additional well planned strategies were adopted to transfer messages on anaemia to the community. Flash cards were used as the next input. While flash cards have been used earlier for different health problems this was the first time that they were designed according to a set of prepared messages. The flash cards were systematically used throughout the project period.

Initially the health volunteers were taken through a process of memorizing the messages. Every time they came for a review, they were asked to repeat the messages. As a next step they were taught how to use the

flash cards. Each volunteer was given a set of flash cards so that each one had a resource material in her hand. They were taught how to use the flash cards at the community level.

The use of flash cards started at a small group level. These included mobile clinics where patients gathered and for small groups of village women. However most effectively this was used for one to one communication with mothers including pregnant women.

Stalin and Selvakumar in the process of preparing a video for community education

There were two other educational aids prepared. These were one video and an audiocassette incorporating the messages into songs. Limited project period made it difficult to use these two aids. Effective means of ensuring that a video cassette player and a T.V. were available in the village were difficult. Further, the number of audio cassette players available in the community was also limited.

With a view to broad basing education on anaemia as well as to make it sustainable in the long run, a special education programme was organized for adolescent girls at the community level.

This project being considered as action research, had not only a pre and post evaluation but there was a control group as well. With a concerted educational effort there was a very significant difference between the group educated and the control group outside K.V.Kuppam block.

HIV/AIDS Programme

Behaviour modification in HIV/AIDS was probably the most difficult. The problem affected individuals who wanted any professionally known information to be kept confidential. It affected people's personal sexual lives and communication on this topic was also difficult. In spite of the difficulties, this was probably the most challenging behaviour modification project.

The first communication strategy was to organize a village based evening cultural programme where information on HIV/AIDS was discretely shared. To get a feel of the problem and how to handle such a personal and sensitive issue, a one day communication workshop was organized for barbers of the area so that they could share information on HIV/AIDS. It was realized that these strategies were not adequate to bring about behaviour modification in HIV/AIDS.

Another unique opportunity lent itself when a major programme for adolescent girls was implemented. While the overall purpose of the adolescent girls' project was social empowerment, it was also realized that education on HIV/AIDS would also be beneficial to them as this was increasingly becoming a problem among young people. While this was an effective channel for HIV/AIDS communication, in the long run the problem required interventions that brought about behaviour change as well. And so the systematic process started.

Preparing messages was the first task. It was more complex than for other programmes carried out earlier. The messages had to address both those with the disease as well as those without. Besides the disease element, the social dimension of avoiding stigmatization and social acceptance had also to be addressed.

The most comfortable approach was to use campaigns in creating awareness. Almost in each village a public meeting with a cultural programme and where feasible a video show was organized. Rallies by school children shouting slogans on HIV/AIDS were also carried out. After each of these campaigns and rallies hand bills with HIV/AIDS messages were distributed and staff were available to answer any questions.

As a next approach street plays were effectively used. These were well received in the community as it used folk media to disseminate the messages. Songs and dramas enacted in the evening hours after women finished their household work, made it possible for the entire villages to have an enjoyable evening with a purpose.

Puppet shows were the next media used. It was easy to transfer to the mouth of puppets the various sensitive messages on HIV/AIDS. Puppet shows were not carried out alone but were part of larger programmes.

In spite of various strategies of communication adopted for HIV/AIDS control, it was realized that in the long run it would be a one to one communication that would ultimately have an impact. Therefore peer educators were trained in the community. Adolescent boys and girls were trained in the schools so that they could support youth. Selected young married women from

the community were trained to support married persons. The peer educators were educated on HIV/AIDS and communication skills so that they could help the individuals in the community to make correct choices that would minimize the risk of HIV/AIDS. It was surprising how the women were able to even interact with the men in this area.

Tuberculosis, HIV and suspected AIDS Deaths

Year	HIV Diagnosis	Suspected AIDS Deaths	Tuberculosis
1984	-	-	144
1985	-	-	179
1986	-	-	177
1987	-	-	268
1999	-	-	252
1989	-	-	292
1990	-	-	280
1991	-	-	217
1992	-	-	301
1993	-	-	215
1994	3	1	148
1995	1	1	174
1996	15	3	236
1997	5	2	119
1998	10	5	111
1999	9	3	133
2000	24	3	145
2001	11	2	135

There has really been no end point in the HIV/AIDS communication. It is anticipated that the community based peer educators would continue to support one another so that HIV/AIDS is minimized. Some data available on new cases of HIV/AIDS, new cases of tuberculosis, and the steady number of reported death due to suspected AIDS could be an indicator of the impact of

the behaviour modification programme. While under reporting could not be ruled out, cross linking with tuberculosis which is reasonably accurate could be taken as an indicator of success.

There is enough evidence being gained that HIV/AIDS prevention requires a comprehensive multistrategy approach. It is becoming clear that the one-shoe-fits-all is not applicable to HIV/AIDS as well, and that alternative strategies need to be promoted besides targetted interventions. Recently in a letters to the editor of Hindu, responding to an editorial a reader sent in this message. "The words, 'in this day and age',... nobody... saddening... An epidemic of course must be tackled on a war fooring with no effort spared to stem the spread of it. Nurture morality with same vigour as protected sex.... Prevention has come to mean condoms and not discipline. Human weaknesses is as old the race itself. But they have never been or never should be condoned." RUHSA's experience would support these statements all the way, as published evidence is beginning to support this reasoning.

Parenting

Finally in an unexpected manner a programme on educating mothers on parenting was provided to RUHSA. Having gone through this process of behaviour modification a number of times, the routine steps were immediately followed. It started with messages on parenting. The list was probably the biggest. It was printed and made available so that it could be used in as many ways as possible. Preparing flash cards on parenting followed this. The volunteers were educated next so that they could train the mothers. Street plays followed a day of special programmes in the community. However it was felt necessary that to make it sustainable, the community should be involved more actively.

Therefore starting with the provision of a little money in the hands of the volunteers, they were asked to organize a programme according to their understanding. While there were some common activities, each group had the freedom to implement whatever they thought was appropriate. When it was all over it was clear that this approach would contribute definitely towards sustainability. They involved the entire community including fathers, adolescents, children, and even grandmothers. They had competitions in food, music, and elocutions. This was probably the most participatory way of bringing about behaviour modification.

These programmes enabled RUHSA to go through applying the full range of various approaches to behaviour modification. Pooling RUHSA's

experiences in behaviour modification brings up certain patterns of intervention that contributed to success. These are discussed so that it could be of benefit to others as well as to look at them critically.

The first point that stood out was that for any behaviour modification programme to be successful, it must be comprehensive in nature. This means that all available information on any area must be given to the community allowing them to choose what was most acceptable to them. While it is important to state the merits and demerits of every choice and even indicate which is the ideal choice, ultimately the choice must be left to the community. Service providers should not choose what is best whether it is condom for HIV/ AIDS or insecticide treated bed nets for malaria.

The next important aspect considered significant for sustainable behaviour modification was to educate the entire community and not only high risk groups. The rationale for this has been that any sustainable behaviour modification requires the support of the entire community, which means that they should be fully knowledgeable about the problem. When the entire community is fully knowledgeable about the problem, then even those who are opposed to change or a particular intervention, relent sooner or later.

Strong traditional and cultural practices need to be handled sensitively. When a practice is apparently harmless it can be left alone. When one is not clear how a practice affects people, those trained in western oriented systems of medicine should not be critical. Traditional practices can be scientifically tested using epidemiological designs. There is a need for humility in accepting ones limited understanding of cultural practices. Instead of becoming critical and opposing such practices, gentle diversion would be more helpful.

The other major understanding of behaviour modification was that it required multi strategic and multi media approach to communication. Each media and method influences a particular section of the community and is appropriate for a particular message. Therefore a multifaceted strategy is considered far superior than a single strategy.

The most significant experience of RUHSA was in the use of curriculum design as a means of behaviour modification. A curriculum clearly defines the behaviour change expected in any group of learners through the preparation of behavioural or instructional objectives. Consistent and uniform use of curriculum approach by a large number of RUHSA staff has contributed significantly to the success of RUHSA's programme of behaviour modification.

Behaviour modification, Information, Education and Communication (IEC) and Health education are different terminologies using somewhat different approaches adopted to reach the same end point of changing people's behaviour for the better. Of these behaviour modification as described is the most powerful. Monitoring of behaviour modification has to be systematically carried out just as in any other programme of service delivery. To bring about the most effective change there is a need for systematic planning and intervention to ensure sustainable behaviour modification. The following is the outline of this process.

Behaviour Modification Process

- Sensitize policy makers, stake holders, and planners
- Plan with all senior staff of implementing organizations
- Prepare acceptable messages for the anticipated behaviour change
- Train staff/personnel who will be involved in implementation
- Train staff or personnel who will be the key trainers
- Staff should train community volunteers to train the community
- Volunteers should educate the community according to curriculum
- Facilitate community to plan and implement activity
- Monitor effectively to ensure that activities have taken place at each level
- Enable community to organize an evaluation programme.

18. PARTNERSHIPS AND NETWORKS AGAINST POVERTY

While RUHSA had adequate trained manpower for almost all its activities the inherent value of partnerships and networks coalescing to overcome poverty was not lost sight of. A wide variety of partners have been working with RUHSA over time. Some have continued the relationship over many years, while others have been for shorter periods of time. However this has been a mutually rewarding experience of sharing. These partnerships have supported RUHSA's input to the community providing intellectual, moral and financial support.

Bishopton Kuppam Link

There are two reasons why this is listed first. This was the first partnership programme with RUHSA. Further this has been the longest one still continuing. This link is established between the people in Bishopston in Bristol, UK and the people of village K.V.Kuppam and the villages surrounding it. It was established in the year 1978 and 1979. RUHSA plays more of a facilitator role with a smaller direct beneficiary role.

The principle of this linkage is under that of twinning of cities where there is a formal tie up with peoples of two cities. In this setting, instead of cities it is a small ward of locality of urban Bristol with a village in K.V.Kuppam. Each year the Bishopton side of the link raises money for K.V.Kuppam through fairs, exhibition etc. This money is earmarked for special projects initially identified. RUHSA and people in K.V.Kuppam utilize the money for the stated purpose either alone or together. The benefits provided by the link have been water supply, class room and library for the schools in K.V.Kuppam. Tailoring machines, have been provided to the community. RUHSA has received money for medical care of poor patients, a pre school programme, and providing roof for the roofless among the poor.

As often as possible, there has been exchange of personal on both sides. Visitors with different backgrounds from Bishopston spend varying periods of time ranging from 2 weeks to 2 months or at times even longer. In return community members accompanied by a RUHSA staff have also paid visits to Bishopton.

One of the most valuable inputs from Bishopston has been the establishing of the Barbara Jennings Nursery School. Long before play way

method was permitted for children, this school was adopting it. Initially, it was a costly centre. Over time, costs have been considerably reduced. As part of developing this programme, a staff of RUHSA visited Bishopton and was trained in play way methods. Since his return, the programme has been extended to four other centres.

Recognizing that charity alone would not be long lasting an economic programme was planned. To avoid any legal issues and reduce financial liabilities, this task was handed over to a member in Bishopton to be operated individually. The activity involved stitching of garments by tailors using cloth woven by weavers from K.V.Kuppam respectively. RUHSA helped start the activity and for a number of years, provided the leadership support. With a major influence of export and import tasks and with the large work output expected for this, RUHSA very gradually withdrew from this work and allowed the community to carry on with the work.

St. Olafs College, USA

Next to the Bishopston Kuppam Link the association with this institution would be the second longest. Biology students from St. Olaf's College, USA, visit RUHSA each year. Their visit is part of a larger programme in South India. The RUHSA component consists of two parts. During the first part some of the students from the group spend a week orientation to rural Tamilnadu as well as some of RUHSA's work. This is only an orientation programme. During the second part some students from the orientation period and some from other projects spend up to five weeks at RUHSA.

The second posting is more intensive than the first. During this posting each student picks up a topic of his or her interest and collects information through a number of approaches. It starts with a quick literature review. This is usually followed by discussions with experts either at RUHSA or at the main hospital in Vellore. Most students would follow up with a study collecting primary data after preparing an interview schedule. They computerize and analyse the data and a short report is prepared. It is presented to a group of staff and discussed. This is an opportunity for the students to express their impressions of their findings. It gives the staff an opportunity to explain any wrong opinions that could have been formed because of cross cultural differences. Some students have opted to observe some of the ongoing programmes rather than collect data. However they too end up writing a draft report. On return to their college they work with their faculty and write final report, a copy of which is also submitted to the RUHSA department.

While the whole exercise appears to be fairly simple there is tremendous learning opportunities in the whole programme. First of all it gives an opportunity to the students to consider future options in their further studies. It is amazing to see how many have been influenced to take up careers in the health sciences. Another opportunity this affords is for those interested in international services to learn first hand the requirements of an international setting. Finally some students have identified some of the technologies appropriate for their own country setting. Overall this is a one way of learning process for which the students pay fully for the services. This programme has been organized by the Friends of Vellore, USA.

University of South Australia

Relationships with the University of South Australia (UniSA) started in the year 1996. A student from the School of Social Work Policy accidentally landed in RUHSA when his other contacts could not fully meet his placement needs. However the strong foundations for this relationship were laid a year later when three students spent their full placement period of 15 weeks at RUHSA. It was immediately realized that this would be a mutually rewarding experience for both the institutions and steps were taken to build up this partnership. Dr. Frank Tesoriero from the School of Social work Policy visited RUHSA and together a relationship was built up.

The programme works in the following manner. The social work students of UniSA are expected to carry out a 15 week placement. Some students complete this in an international setting. RUHSA is one such centre which has become a regular centre for placement with a formally agreed Memorandum of Understanding. Each year up to two batches of students visit RUHSA. Each batch has anywhere from one to a maximum of seven students.

The broad plan of action for the 15 weeks is one of mutually agreed work. On the part of the students they are expected to select a social work topic, collect relevant information from the community and make an assessment. They are expected to make some relevant recommendations and then follow it up by implementing at least one or two of them. It is anticipated that this would give them an unique opportunity to try out hands on experience on actual social work problems in international cross cultural settings.

RUHSA on its part chose areas of its work where such inputs would add value to the ongoing work. The areas could be evaluation of ongoing activities, baseline surveys for new activities planned, exploratory studies where new activities are to be started etc. What has been unique is the quality of

documentation produced as a result of the students work. These documents are valuable for RUHSA in planning advocacy and promotion.

As one began to realize the mutually beneficial relationship this partnership was taken one step further by developing an exchange process. The chief co-ordinator and supporter from UniSA side Dr. Frank Tesoriero, is from the School of Social Work Policy. Initially he raised funds to invite one of the staff from RUHSA to visit Adelaide once in two years. Based on the staff interest and the resources available at Adelaide, staff capacity development would take place. This became mutually so rewarding that Frank was able to get additional funding support leading to two staff members visiting Adelaide each year. To date seven people have visited Australia as part of this programme.

Further students who visited RUHSA on their return to Australia wanted to maintain their relationship in an ongoing manner. Therefore they organized themselves into what is called Supporters of RUHSA Association (SORA). It is registered in Adelaide. They primarily prepare students who plan to visit RUHSA. They also support RUHSA staff when they visit Adelaide. They have been able to collect books for the RUHSA library as well. Academically and socially this has been a very rewarding partnership.

Communication for Health - India Network (CHIN)

Although officially this network was formalized only in 1997, the relationship with Healthlink Worldwide has been established from the middle eighties. Earlier RUHSA along with three other partners in India were involved in translating the language versions of Dialogue on Diarrhoea - an English Newsletter. RUHSA published the Tamil version. Later this newsletter became the Child Health Dialogue.

This is a small network with four Indian organizations along with Healthlink Worldwide from London. In the first phase up to 1997 the Indian partners were passive in bringing out the different language versions. RUHSA did almost word for word translation of the English newsletter, others adapted it considerably. Earlier feed back by Tamil readers had indicated that being a translation of an English Newsletter from London afforded greater credibility. In the second phase there were more efforts at networking. Theme meetings and a regional conference were also organized. However exchange of visits between organizations were limited.

This is the third phase of the network. The planning process for this has been very participatory. The objectives are far more clearer than in the first and second phases. For instance RUHSA is involved in a project in Orissa for malaria control. While it is funded by a different agency this network fills up communication gaps especially with the supply of communication materials. The networking process is also well planned out especially with the formation of regional networks.

This has been a very effective network in developing our publishing capabilities. Other aspects of capacity building among staff have also taken place. RUHSA has been developed as a resource centre as well. This network has a rotational secretariat. In the last phase it was in New Delhi. In this phase it has been started with the partner in Ahmedabad.

Indian Rural Energy Network (IRENET)

This network is also as old as the other network although formally established only in 1999. Prior to 1999 the networking role was carried out by Action for Food Production (AFPRO) from New Delhi. The main function through this network has been in the area of renewable energy. This has been primarily in the promotion of biogas as form of household energy for cooking. This work has also been going on since the early eighties. This is a national network with over fifty NGO members. The international partner is PARTNERS in development, formerly known as The Canadian Hunger Foundation, Ottawa, Canada.

Till 1999 the network was primarily receiving funds and implementing projects. During the current phase there is an attempt at capacity building of NGO partners. This has been initiated through regional processes. There is also attempts at moving beyond biogas into other forms of non conventional and renewable energy. This network has its national headquarters in New Delhi.

Network for Information on Parenting (NIP)

This is a Tamilnadu network again with four core NGO members. This is the youngest of the network actually only three years old but very intensively active for only one year. Of all the networks this has been the most dynamic partly because of being closer to each other as well as having a dynamic leadership. Within the last one year it was possible to carry out a major project on parenting information through the four network partners. The headquarters for this network is at Chennai.

RUHSA was able to carry out its parenting education through the Self Help Groups organized in its project area. There was tremendous support from all the network members as well as the secretariat. There were flip charts and flash cards on parenting prepared for this programme. There was tremendous community participation throughout. It was surprising to see the enthusiasm among men responding to our education to play a greater role in parenting and care of children especially the pre-school children.

Voluntary Health Association of India (VHAI)

No individual or organization can become a member of VHAI. Only State Voluntary Health can become its members. However, VHAI and RUHSA had a special and close relationship for many years. VHAI was the certifying body of the Diploma in Community Health Management course from RUHSA. VHAI established an educational council which oversees the functioning of this course. Scholarships were made available for the students in the course. VHAI funded a week long educational tour for the students to Delhi each year. The alumni association was also promoted by VHAI. This relationship was maintained very closely for nearly 15 years. With RUHSA increasingly becoming independent VHAI started promoting other areas of work.

Tamilnadu Voluntary Health Association

RUHSA has been a member of this network since the earliest years. As the network has grown, RUHSA has been able to contribute in whatever small way RUHSA can, to the growth of the network.

The following page lists the partners who have funded RUHSA over the years. While Friends of Vellore in different countries have had close ongoing relationships, others have provided funds at different points in time. One cannot but recognize their contribution over the past quarter of a century.

Funding Partners

FRIENDS OF VELLORE

VRCT, UK
Friends of Vellore, UK
VelloreCMC Board, USA
Friends of Vellore, Australia

USA

Lutheran church in America
Ford Foundation
USAID
Lutheran World Relief
Cornell University
Heifer Project International
Intermedia
UMCOR
Church Missionary Society

INDIA

AFPRO
Water Development Society
CASA
Catholic Relief Society
UNICEF
OXFAM
Methodist Church in India
Seventh-day Adventist Church
VHAI
Sri Ratan Tata Trust

EUROPE

CEC, Brussels
ICCO,
Holland

AUSTRALASIA

AIDAB, Australia
University of South Australia
CORSO, New Zealand

CANADA

Canadian Baptist Overseas
Mission Board
Canadian Hunger Foundation
United Church in Canada

WEST GERMANY

KED
EZE
Bread for the World
CBM,
CARITAS

UNITED KINGDOM

Christian Aid
Overseas Development Ministry
Bishopston Kuppam Link
Leprosy Relief Association
Teaching Aids at Low Cost
Healthlink Worldwide

GOVERNMENT

Government of Tamilnadu
Department of Health &
Family Welfare
Department of Social Welfare
TNWDC

Government of India
Adult Education
ICSSR

19. ACHIEVEMENTS AWARDS AND RECOGNITIONS

Ultimately for a programme of the nature and size of RUHSA, the changes brought about in the community must be presented as relevant data.Some of the key indicators of change are given. They are classified into four major categories. While some of the current data have been interspersed throughout the book, the following tables show comparative data over a number of years.

The first set of data relate to the demographic changes witnessed in the entire block. The first change witnessed was reduction in crude death rate. This was rapid and sustained. Infant mortality rate also declined rapidly from the initial high levels by about 50% to 60%. Below that the rate of decline has been slow. Even with efforts at reducing perinatal mortality rate the decline has been slow. Crude birth rate has consistently declined over the years. The following table shows the demographic data.

DEMOGRAPHIC CHANGES

Years	78	83	86	87/88	92/93	98
Couple protection rate	-	-	-	-	54.2	-
Crude birth rate	34	-	23.3	-	22.7	15.8
Crude death rate	15	8	9.3	-	9.8	6.5
Child mortality rate	23.3	11.3	11.4	-	-	-
Sex ratio	949	1007	1011	-	1006	-
Infant mortality rate	116	65	50.8	-	62.2	43.2
Perinatal mortality rate	-	-	-	-	38.3	48.0
Literacy Rate						
Male	-	-	-	53.3	-	71.0
Female	-	-	-	24.3	-	50.0
Persons	-	-	-	34.5	-	60.5

The next set of data relate to improvements based on the control of communicable diseases. These include poliomyelitis, whooping cough, measles, tetanus neonatorum. Incidence of diarrhoea and whooping cough was obtained only once in a few villages of the population. This data is shown in the following table.

COMMUNICABLE DISEASES

(Per 1,00,000 population)

Year	79	83	86	90	92
Poliomyelitis (Incidence)	26	12	4	-	0
Measles (Incidence)	-	160	31	-	0
Whooping Cough (Incidence)	-	-	1	-	0
Tetatanus Neonatorum (Incidence)	-	-	-	-	0
Diarrhoeal Diseases (Incidence) Number of episodes / child-year U3	-	-	-	1.77	-
Respiratory Diseases (Incidence) Number of episodes / child-year U3	-	-	-	2.56	-

Nutritional status showed significant changes over time. A number of cross sectional studies were carried out over the years and these have been used to identity the changes. Anthropometric measurements to study the effect on protein energy malnitrution was the most common. Anemia and vitamin. A deficinery studies were fewer. The nutritional data is shown in the table below.

NUTRITIONAL STATUS

(PREVALENCE %)

Year	78	83	86	87/88	92/93	01
Normal-	37.9	-	-	44	65	58
Stunting	-	41.4-	-	41	20	24
Wasting	-	11.1	-	5	8	11
Stunting & Wasting	-	9.6	-	10	7	7
Arm Circumference <12.5 cm	26.0%	7.0	2.7	-	-	-
Wt/Age <60%	-	5.8	2.8	-	-	-
Ht/Age <85%	-	8.9	4.9	-	-	-
Low Birth Weight (<2.5Kg)	-	-	24	-	-	-
Vitamin A Deficiency (Clinical)	-	-	1.1	-	-	-
Anemia (Hameoglobin) Under 5 Years (<10 g%/DL)	-	-	60	-	-	-
Adolescent Girls (<12g%/DL)	-	-	76	-	-	59 6 (1998)
Pregnant Women (<11g% /DL)	-	-	77)	-	70 3 (1996)	50 4 (1998)
Serum Retinol <0 7 u mol/L(20 mg/dl)	-	-	-	-	16 9 (1990)	-

The final set of data relate to chronic diseases. These are based on special studies and research carried in small pockets of the block. While they do not represent the entire block, because of fairly homogenous populations living in different villages, the data would be reasonably representative of the block. These being one time studies there are no comparable data. They are shown in the following table.

CHRONIC DISEASES *

Incidence of Pulmonary Tuberculosis (Smear Positive) - 1983	(per 1000)
Male	1.47
Female	0.60
Total	1.11
Prevalence of Pulmonary Tuberculosis (Smear Positive) - 1981	
Male	3.50
Female	1.36
Total	2.41
Prevalance of Chronic Obstructive Pulmonary Disease - 1980-85	
Male	40.8
Female	25.5
Total	33.0
Prevalance of Pulmonary Eosinophilia - 1980-85	
Adults	12.6
Male	14.1
Female	11.8
Children	9.4
Impaired Glucose Tolerance (>7.8 mmol/L & <11.1 mmol/L)	Percentage
Male	9.4
Female	4.1
Total	6.6
Non Insulin Dependent Diabetes Mellitus (>11mmol/L)	
Male	6.8
Female	3.6
Total	4.9
Hypertension	
> 160 mm Hg Systolic or >95 mm Hg diastolic	12.5%
Dental Problems	
Dental Caries Prevalence	23.9
Gingivitis	10.17
Dental Caries and Gingivitis	6.1
Edentulousness	6.0

In a way these data have been useful in analyzing the changes taking place in K.V.Kuppam block. They have also been useful for purposes of planning. Except for the data from special research studies, much of the other data can be collected by most NGOs if some systematic process is instituted to collect data in an ongoing manner with a certain amount of rigidity for accuracy in the generation and recording of data.

* All the data are based on special studies

Awards and recognitions

The awards below are one way in which God has enabled RUHSA to be recognized for its work at the District, National and International levels. Many times God has expected RUHSA to silently keep on doing the work of enabling the poor to be richer and the ordinary people to be made great. These then are a reward for the team effort and work carried out by everyone at RUHSA. Even as RUHSA was kept isolated from the busy through fares of life, these recognitions have encouraged its staff to aim higher in achieving more for the people and our God who has called each one into this ministry.

Year	Award	Recipient
1992	B.C. Roy Award for Socio Medical Work	Dr. Daleep S. Mukarji
1995	Associated Chambers of Commerce and Industry Award on Rural Development	RUHSA
1987	WHO LISZ Award for Health Education in Primary Health Care	RUHSA
1990	National Award as Best Placement Officer	Mrs. E. Vijayakumari
1990	Best Artist in Vellore District	Mr. Nagarajan
1991	Federation of Indian Chambers of Commerce and industry Award for Rural Development	RUHSA
1993	Recognition as Best Agency for constructing Biogas plants in Thiruvannamalai District	RUHSA
1998	Recognition as Best Agency for constructing Biogas plants in Vellore District	RUHSA
2000	Best SHG in District - Pasumathur	Saranalaya
2000	Best Cluster Level Federation in District	Pasumathur
2001	Best Woman Panchayat President from SHG	Ms. Saramanjari-Netteri
2001	Best SHG in District - Pasumathur	Anbalaya

Section III

SHARING FROM EXPERIENCE

This section deals with how RUHSA was able to share from its experiences in rural health and development. This took particular importance as soon as it was realized that RUHSA was not totally replicable in populations elsewhere. However, there were many lessons and practices from RUHSA that could be replicated readily by others. The training programmes, consultancy and evaluation services of RUHSA formed the media through which these experiences were shared. Focused research on specific problems and publication of these findings through scientific journals and books formed the other means of sharing experiences. Presentations in conferences also formed an important process of sharing. Together these constituted the Consultancy, Evaluation, Research and Training - CERT Unit of RUHSA.

20. TRAINING

Initially it was anticipated that the early experiences gained in health and development would contribute to the training programmes at RUHSA. Without much delay, the training activities were started. If one looks at the initial detailed planning that went into the Programme Proposals, training activities as implemented were almost as planned. However the major, component of training planned was for medical students.

The name of the course planned was, integrated course on Social Aspects of Medical Practice. The whole time plan within the medical curriculum was clearly defined. In the first year of RUHSA medical students did come for this planned training. As officially, RUHSA was not part of the university teaching system, the teaching role was not given to RUHSA. Never in it's twenty five years have under graduate or post graduate medical students ever visited RUHSA for the original curriculum planned, except for that first visit. Although a number of committees have recommended that training of medical students be restarted at RUHSA, it has never materialized. Only medical interns come to RUHSA regularly. Each fortnight two of them are posted.

Surprisingly unlike the medical students the nursing students enjoyed their posting at RUHSA and have continued to utilize the resources effectively. Whatever be the gaps in nursing education, RUHSA was able to provide what was expected. The only thing that was not achieved was domiciliary midwifery practice. Two factors contributed to this decline. Increasing birth control reduced the total deliveries in the community making it difficult to have sufficient deliveries within a short posting from a restricted area. On the other hand many women opted to deliver in an institutional setting and so home deliveries became even fewer.

If medical students were not to be posted, there were others who were interested with real needs. And so the focus was shifted to community health management training. As in other situations, this training was not to be for the elites in health management but for those who had served under difficult circumstances without much qualification but with plenty of experience.

Therefore the Diploma in Community Health Management course was organized in RUHSA. This had one of the most intensive planning process with two major consultations one at the national level and the other at the international level during the years 1980 - 1982. The first batch was started in 1983. There was excellent continued support from the Voluntary Health

Association of India for over fifteen years. In the year 2000 the course was re-designated as the Post Graduate Diploma in Community Health Management (PGDCHM) based on the feed back of earlier students. With inputs by staff and feed back from students the curriculum has been periodically reviewed and modified. One of the major changes was to reduce the duration of the course from fifteen months to 12 months modifying the core subjects and other modules as workshops. Today the PGDCHM course stands out with an unique curriculum. One unfulfilled request from former students remains which is to have this as a university recognized course.

Their request is considered reasonable as it has been extremely difficult to identify that 'experienced but less qualified health worker. Nineteen batches of this Post Graduate Diploma in Community Health Management have been completed.

Since predominantly the candidates were sponsored, many went back to their work. Based on their level of entry into this course, their contribution in the work place has been proportional to their level of work. Two of the alumni are Executive Directors of State Voluntary Health Association. One is a Member of Parliament of the Tibetan Government in Exile and secretary of the Tibetan Hospital at Dharmasala, Himachal Pradesh. A number of them are working in funding organizations. A few have their own projects and most are involved in middle level management and training positions.

Information on the spread of where the students came from gives an idea of the background of the students. Tamilnadu had the highest followed by Orissa, Manipur, West Bengal and Bihar also had a number of students each. Most other states had one or two each. As for the international students Nepal topped the list with a number from different countries of Africa and Asia.

Another unique feature of this course is that it is an academic programme in a service programme setting. This course attempts to overcome a common problem faced by RUHSA and other NGOs. Graduates or even post graduate students coming out in many disciplines cannot immediately start applying what they have learnt in a training institution. This course focuses on skills needed for a project manager or administrator at all levels so that a good student can apply these skills soon after training.

Over the years, RUHSA has been able to achieve considerably in the area of training. The data is presented in the following table.

DETAILS OF TRAINING OVER THE YEARS

Year	Regular Training	Special Training	Government Sponsored	Education Institutions	Overseas	Extramural	CMC Nursing	Visits
1978	-	350	-	-	-	-	-	-
1979	-	108	-	-	-	-	104	-
1980	-	-	-	-	-	-	-	-
1981	-	-	-	-	-	-	-	-
1982	-	-	-	-	-	-	-	-
1983	7	-	-	-	-	-	-	-
1984	142	133	20	51	32	-	102	4
1985	108	311	89	62	57	-	208	56
1986	151	431	-	51	61	-	166	56
1987	114	370	-	766	-	642	-	-
1988	207	702	43	58	80	1787	125	-
1989	138	298	-	50	43	395	220	194
1990	161	648	-	8	51	267	155	-
1991	282	250	76	156	27	250	119	45
1992	141	609	74	61	24	244	182	35
1993	286	202	206	11	9	154	203	192
1994	177	248	-	52	9	443	182	8
1995	786	273	-	64	20	678	512	25
1996	338	292	-	49	46	548	507	181
1997	68	544	-	15	21	625	649	177
1998	109	144	-	10	74	608	549	199
1999	186	288	101	11	16	750	542	298
2000	111	275	-	18	17	486	601	56
2001	114	1164	-	6	23	288	601	56

This twelve month course became the base around which other very need based training programmes have been organized at RUHSA. It was identified that the student completing this course was provided with so much valuable skills that usually the trainees found themselves over skilled, sometimes even more than their bosses who had sent them. They did not last long in the organization, and in the end it turned out, that sponsoring a student was a loss to the organization. Therefore organizations became hesitant to sponsor students for the long courses. Thus began the need and popularity of short term workshops.

Trainees at RUHSA actively involved in a tower building game a popular partnerpatory learning method.

Classically, a RUHSA workshop was of five days duration starting on a Monday morning finishing by Friday afternoon. Almost every workshop covered the entire concept base of the topic. When topics were large they were divided into smaller workshops. One general complaint was that five days were never enough. Knowing the way the workshops were structured, that anything longer would be boring. So the five day format has remained for more than a decade and a half.

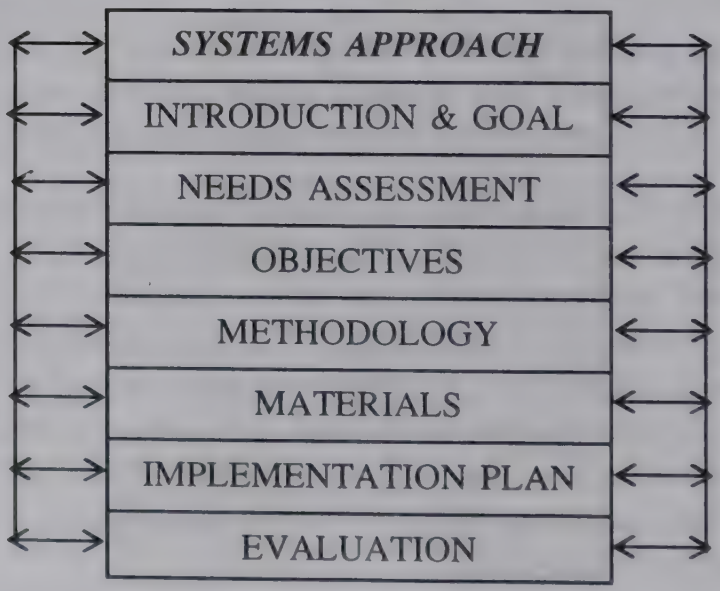
It is interesting to recapitulate the pathway through which RUHSA's training programme developed before describing further aspects of the training in RUHSA. Staff capacity building has been a constant process. During the initial years, one of the doctors from RUHSA received training on teaching and learning community health from the Johns Hopkins University. This basically dealt with how to plan a training programme with special emphasis on writing clear instructional objectives. However, on his return when attempts to introduce these new concepts were made, there was stiff resistance from staff as planning in this way required some effort.

In 1996 there was an opportunity to have a staff training programme organized by COADY International Institute, Canada. The topic was on evaluation and a person by name Mr. R. Amit (originally from Srilanka, but settled in Canada) was the resource person. The staff greatly enjoyed the

programme. While discussing on future staff capacity building workshop, it was agreed that he would depute another person for a two week workshop on curriculum development. This programme was organized towards the end of the year.

Dr. Maria Rovers was the resource person. Starting from the basics, she took about nearly 20 staff through the ABC of curriculum design and development. She started with evolving values as an important learning process. In an age when it is generally believed that values or attitudes can only be caught and not taught, her contribution was significant. Of course the entire domains of learning including the cognitive, or knowledge, psychomotor or skills, and affective or attitudes were forcefully emphasized. However of all her instructions what has almost remained unchanged has been what is called "The Systems Approach" to curriculum development.

A systems approach uses the management concept of showing all the elements of any organization interdependent and adjusts to changes in the environment. This same principle can be applied to a curriculum as well. The various elements of a curriculum are shown in the figure below. The arrows indicate the interdependent relationships between the elements. Changes in one element, naturally influences the others. For instance, if the goal changes from a short term one to long term one, then the objectives, methodology or just about every element has to be modified. The components of a systems approach are shown in the following figure :



The curriculum, starts with a goal. This follows a short introduction of the background of the training. The goal states what is intended to be achieved. This is followed by the needs assessment. Although it looks simple it helps to identify if what is planned is appropriate for the group.

Dr. Bhatnagar and Dr. Venkateswara Rao of VHAI attending the Educational Council of DCHM.

Dr.Probir Chatterjee. an alumnus of CMC addressing the National Conference on Kala Azar at New Delhi organized by RUSHA

Dr.Booshnam Moses, Principal CMC giving Diploma to DCHM Student Sr.Basil

Writing the objectives is probably the key to the whole curriculum. The choice of action verbs in describing the expected output of training, demands considerable skill and practice. Even the most experienced face problems in writing objectives. Only regular use of the systems will help in writing objectives with greater ease. Objectives should cover cognitive, psychomotor, and affective domains. Writing affective or attitude objectives are the most difficult. The general objectives should move from the simple to the complex. Sequencing of objectives should be such that knowledge and skill are incrementally learned. The objectives should be achievable as well as measurable and time bound.

Finally the objectives are stated in terms of what the learner will be able to do after the training programme rather than what the trainer would do. The following table shows the differences between the two.

Trainer Centred Programme	**Learner Centred Programme**
1. Follows a syllabus	Follows a curriculum
2. Trainer follow a set of topics which is to be covered in the class	The trainer follows a set of behaviours that the student will be able to do at the end of the class
3. The student assesses whether the trainer has covered all the topics	The students assess whether the trainer has been able to bring about the behavioural changes indicated in the objectives
4. Usually follows lecture method with very little direct involvement and participation from the students	Usually the methods are varied and according to the needs of the objective
5. Assessment is usually by conducting a written examination primarily to observe the changes in knowledge status, with no feed back to the students except the marks	Assessment is by a variety of means including tests, presentations, participant observation etc. Feedback is usually provided almost immediately after the assessment. There is also emphasis in knowing the student feed back on the whole learning experience

The other elements are clear and straightforward. Methods and materials clearly depend upon the needs of the learners as well as the objectives. In the implementation, the classroom setting, its convenience, accommodation and food arrangements have an influence on the training so that these must be taken into account. Evaluation should focus not only on content but also on the process. Once one follows the systems approach, there are in-built mechanisms to get feed back on the learning process. One does not wait till the last day of the programme to know if there has been any problem with the training. Most training programmes have in-built opportunities for evaluation by assessing presentations, group work, observing participation, submission of reports etc.

This figure looks very simple. However, when the staff gained confidence in working with this system, it gave tremendous power to them. Maximum power was obtained in applying this to any field of learning or education. RUHSA staff are multidisciplinary professionals although coming from one particular discipline to begin with. Those who have developed this skill can approach any professional client and using this system, develop a curriculum even though they may know nothing about the specifics of that field.

Planning was easy, as a common approach and language was used in the discussion. Usually, the systems approach describes the whole training in one page. Different people can use the systems at different points in time. Any changes to be introduced in any training must, of necessity first of all change the systems approach itself.

Even as it is powerful, it also becomes a threat. There is no short cut in this process. One has to go through each of the steps every time a new programme is organized. People generally are satisfied if a training programme is vague as it gives the trainer tremendous flexibility. But in the systems approach the trainer is committing to very clear and unambiguous tasks, which if not achieved will show itself very clearly. Since it is customary to give a copy of the systems to the students prior to starting a class, they have a blue print to measure the effectiveness of the faculty. This becomes the biggest threat as the faculty are kept on their toes to achieve the objectives.

Choice of teaching learning methods is a vital as other components. The methods should be participatory and should achieve within the time frame what is intended to be achieved in terms of knowledge, attitudes and skills. The time allocation for each method depends on the type of skills the participants need to obtain.

Besides the systems approach and curriculum design, the other training input by COADY institute was on the use of the concept of a Management Evaluation Team (MET). This is a participatory process whereby students take over the management of the training process after it is started, especially relating to teaching learning process and logistics. But additionally, they give a feed back daily in short workshops. This feedback gives timely warning of any difficulties in learning and remedial measures may be adopted. The MET as used in RUHSA is shown in the next section.

Trainees at RUHSA involved in group work, another participatory learning process

Basically in the MET process three participants are given responsibilities relating to the course. The team consists of three members, a moderator, an evaluator and a reporter. The moderator overseas that all logistic needs of training are taken care of, that participants are on time after each break, represents perceived problems and needs of the group to the trainers and acts as a liaison between the trainees and trainers so that remedial measures can be taken as the training progresses. The reporter acts as a secretary and records the proceedings of the day for documenting the training. The evaluator uses different methods of eliciting systematic feed back from the participants, especially trying to highlight the difficult areas of learning where additional inputs may be needed. Each day, a new team is selected by the group so that different individuals have opportunity to take on leadership roles.

Even though RUHSA was able to standardize most of its training programmes especially the workshops, it was realized that not all who came for a common training went back with all the skills needed by the particular organization. This is when RUHSA started exclusively providing training to an individual or a group according to their specific needs. This process is being now recognized as an important approach to training and is described as coaching.

Partly because of RUHSA's programme setting of working in a rural area, the Training Officers have gained considerable skills in training people at the grass root level. This means at times illiterate women come for training. Methods other than lectures have to be utilized more for them.

What made RUHSA's training stand apart was the use of games in the learning process. Now it is the norm. But fifteen years ago games were not used as they are today. Interestingly not all are comfortable with games. However when one looks at the whole RUHSA team the skills of each one blends well and together the output is satisfying. This makes the training very participatory and enjoyable. For example in a recent programme in Jharkand, there were problems anticipated after the training in the actual implementation. Therefore a debate was organized with the first group stating why the particular problem of malaria cannot be solved while the opposing group countered all the arguments with how the obstacles could be overcome.

While trainees coming to RUHSA formed the major component of the training, need based training has been provided in extra mural settings as well. The chief places where such training programmes have been organized are in Orissa, Bihar, Kerala and Andhra Pradesh. Of course there have been training in different places in Tamilnadu. At an international level Nepal has received such training programmes.

Another valuable support to training was the role played by the Media Centre. One of the routine activity is to operate the media equipments like projectors of various types and provide other Audio Visual Aids in training. However, over time, developing a media library of video and audio cassettes was a rewarding experience. For a short while newsletter in Tamil was produced and distributed to Tamil speaking population in South East Asia.

More recently promoting the use of traditional media and puppetry has been well received. Street Play in widely used in the community to bring about behaviour modification. This also happends to be an area in which trainees from other organizations are developed in a need based manner according to the specific projects being implemented.

Media Centre

This was started as the Communication Centre of RUHSA, later named as the Media Centre. Newsletters and magazines were brought out initially. These were materials that were used to support development programmes in the community, as well as to share experiences with others. Newsletters continue to be produced even today. They are focused on child health issues.

The Media Centre also provides support with audio visual equipments in training programmes. To support the training activities a wide variety of

hardware and software, video cassettes, audio cassettes including CDs are used. In the early stages regular film shows in the community were provided.

However more recently traditional media has taken on a newer urgency. Street Theatre is a regular activity carried out by the Media Centre. The usefulness of this form of community education becomes apparent especially in sensitive areas like HIV/AIDS and female infanticide. These traditional media are in demand by many other organizations, and therefore Media Centre organizes periodic training programmes. Thus the Media Center plays a very valuable adjunct role to training.

Library

Along with a long term training programme like the PG Diploma in Community Health Management, a library was also provided as it was an essential component. This may be one of the best social sciences library in this part of the country. The areas covered include areas of social sciences, management, personality development, economics, various aspects of development and components of health and nutrition. Medical books are kept only for the essentials in the care of patients. An attempt has been made to procure books on various states and people groups of India. There are many free newsletters and journals as well. The library also serves as the Documentation Centre. A number of reports by various students are well taken care of and are freely available to students and staff for further research.

Being an isolated rural area, a number of non technical fiction and non fiction books are also available as a lending library. Reprographic facility is available. As the rural areas of the state gets wired into the internet, this facility is also being made available. From time to time research scholars at the M.Phil and Ph.D. levels use this library in addition to the regular students and staff at RUHSA. This is also a very valuable asset to training.

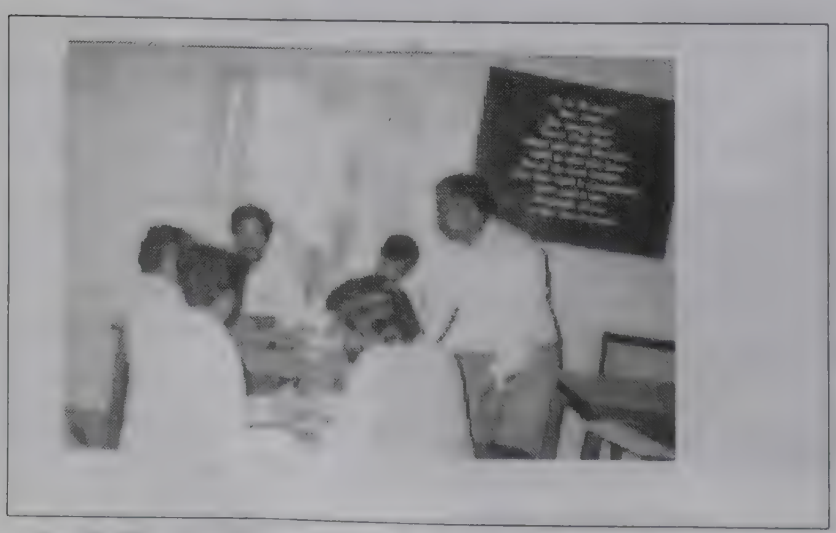
The RUHSA Central Library and Training Offices

21. CONSULTANCY

Although consultancy was a part of the CERT, as training received greater demand and response, the development of this field was relatively slow. Further, for training it was possible to train junior level staff, however for consultancy the same approach could not be adopted, as in the beginning, the RUHSA team was relatively young with the average age being about 35 years. Although many of them had valuable grass root level experience, it was not adequate to provide consultancy. Therefore this area had a late start.

However there were certain inherent strengths, which came in handy when consultancy services were started. At an individual level, a few leaders were providing consultancy, but as a department-wide activity it got established only later. Interestingly it took on an entirely different and unique approach unlike training. It was decided to take on consultancy on an individual organization basis. Further it was also decided to take on a few organizations at a time rather than many. Finally the relationship in a consultancy was expected to be long-drawn rather than a short-term process.

The process itself was comprehensive in nature. Usually there was working relationship with the key funding agency as well. First the needs of the organization were identified. As far as possible where RUHSA could meet those needs they were provided. At other times, suitable resource agencies were identified. The major areas of support were evaluations and other surveys where RUHSA had expertise. This was followed by training of personnel, in identified areas of need. Depending on the agencies specific needs, additional inputs were provided.



Dr. T. Thasian interactive with a group of NGOs from Orissa involved in a planning process

One of the unique processes that was adopted was to use this consultancy relationship to build the capacity of individuals in the organization. Based on the experience, training a number of personnel in an organization at the same time is far

more effective than training just one or two. The two common areas were participatory planning techniques and curriculum planning. Sometimes evaluation skills were also provided.

Another principle adopted was that when relationships were strong and there was mutual understanding, it was suggested that one of our staff allotted to that organization be involved more closely in the regular administration. This would vary from participation in different meetings to being on the board of the organization. One or two examples of this relationship would illustrate the process in a simple manner.

Navjeevan Seva Mandal

Navjeevan Seva Mandal (NSM), at Sevoor, Vellore is one of our regular clients. RUHSA was been involved with them ever since their inception in 1984. The head of RUHSA department was on their board as a well as treasurer for sometime. Their main area of work was in operating homes for children in tribal areas. There were some smaller community development projects as well. RUSHA's help was directly needed in a health project in a tribal area in Bihar. This project was titled "The Kala Azar Malto Project (KAMP)". It involved controlling the killer disease kala azar among the Malto tribal community in Sahibganj and Pakur districts of the present Jharkand state. RUHSA was involved with their personnel in planning the project, discussions with the funding agency, and finalizing the programme. RUHSA's roles were clearly defined in the proposal with the budgets needed for the same.

Looking at the organizational infrastructure of NSM, the funding agency indicated that RUHSA would provide the regular programme monitoring. Additionally the baseline and mid course evaluations were also entrusted to RUHSA. Finally one of the areas of RUHSA strength in planning and training for behaviour modification was also given to RUHSA.

As planned, a team of staff from RUHSA worked with the NSM personnel in completing the baseline survey. Preparing the educational materials for the programme on behaviour modification followed this. Personnel from the project visited RUHSA in preparing the materials. It resulted in a pamphlet on messages, a set of flash cards, and a video cassette on kala azar control. By the second year of work there were some very interesting experiences, which needed some policy advocacy. Therefore the funding agency budgeted a consultancy conference in New Delhi where RUHSA organized the participation of key experts and some policy decisions were made for the project area.

With additional staff a major evaluation was carried for a major funding agency project of NSM. After completing the evaluation, the report was presented to the staff and a strategic planning workshop was organized along with the funding agency.

Consultancy is always a paid activity, with the agency paying directly or from funds earmarked for consultancy. However for smaller organisations especially at the beginning of their project the services may be provided free of cost as well.

TMSSS

Through consultancy services RUHSA at times played a supportive role ensuring that the needs of both the funding agency and the NGO were adequately met. Trichirappalli Multipurpose Social Service Soceity (TMSSS) was one agency where this was evident very clearly. The funding agency expected sustainability of the programme at the end of the project period particularly after a major leadership change. The personnel at TMSSS were not sensitized adequately to the concepts of sustainability.

Therefore RUHSA was entrusted this task. Following a systematic planning process involving TMSSS, CARITAS Germany and RUHSA, various activities leading to sustainability were identified. Subsequently RUHSA provided the necessary training for the staff of TMSSS. During the project period monitoring was provided periodically both at the project site and at RUHSA.

During monitoring visits and discussions with the staff and the beneficiaries there was a felt need for permanent capital investments in infrastructure to ensure regular income. Two of the five recommendations were successful and have continued to operate in the project area.

At a review meeting held in Pondicherry at the end of six years, the Director of TMSSS informed to the group, "Currently the various capital investments are generating income to meet seventy percent of TMSSS core expenses". Based on this, Caritas Germany asked The Catholic NGO in Pondicherry to follow the same model.

Shanthi Malai Trust

Shanthi Malai Trust (SMT) is another organization where consultancy played an important role in sustainable community development programmes. At a time of leadership change in SMT, RUHSA was invited to provide the needed consultancy. It started with evaluation and training of personnel.

One of the problems of SMT was that it had involved heavily in its campus for economic development. A number of production units were operated by SMT within their premises employing a large number of personnel. It was started in a spirit of partnership with the people and therefore no legal employment procedures were followed, leading to some labour problems.

At this stage the funding agency Caritas Germany, wanted to have these income generation activities transferred to the community. Two major needs were identified at this stage. The community needed to be equipped to own these resources in a profitable manner. The staff of SMT needed to have attitudinal change to give up their project to the community giving up all equipments and machinery as well as ownership rights and to play a supportive role. RUHSA took both the groups through capacity building processes so that in a peaceful way the transition took place.

Five community based organizations were registered. Those employed as staff were motivated to cut their relationship with SMT and take ownership of the projects in the community. With mutual understanding and support these units are functioning effectively in the community generating more income for the people than before and are sustainable.

Based on the experience gained at SMT the funding agency was able to use RUHSA's resources in their funded projects in Ethiopia for a period of one year.

In a sense consultancy forms another important avenue through which RUHSA can ensure convergence of its services for outside organizations. The base on which RUHSA's consultancy rests is its experience over the past quarter century.

22. EVALUATION

Evaluation formed the second major component under the CERT section. There has been a steady work output in this area over the years. Having gained considerable experience in training, it was natural for staff to get into this area. Along with training, evaluations provided an opportunity for staff to share their experiences through the reports submitted. It also gave the staff an opportunity to study and understand the working of different organizations and programmes and apply the learning into training programmes.

The basic philosophy of RUHSA supported the concept of external evaluation. However as RUHSA had a large number of staff and with different staff responsible for different projects within RUHSA it was easy to get a non-implementer to carry out the evaluation. This saved considerable expense for RUHSA as well as it gave staff an opportunity to grow and develop skills in evaluation. This ensured that objectivity was maintained in the entire exercise.

The other principle involved was that the evaluations were 'participatory' in nature. This word in evaluation has wide meaning starting with beneficiary involvement in planning and actual implementation of the evaluation. At RUHSA, participation first of all meant that the implementer is also part of the team. It has always been assumed that the implementer will ensure that complete data is available from the activity or project. This saves time as otherwise at the report stage much more data is brought out. Within RUHSA there is very little involvement of the beneficiaries in the detailed planning. However during the actual evaluation and after the report is ready, the findings are shared with the beneficiaries and their feedback and suggestions for further improvement is discussed. Part of the reason for this pattern has been that in most activities there is close co-ordination with the community during the implementation with feedback taking place regularly.

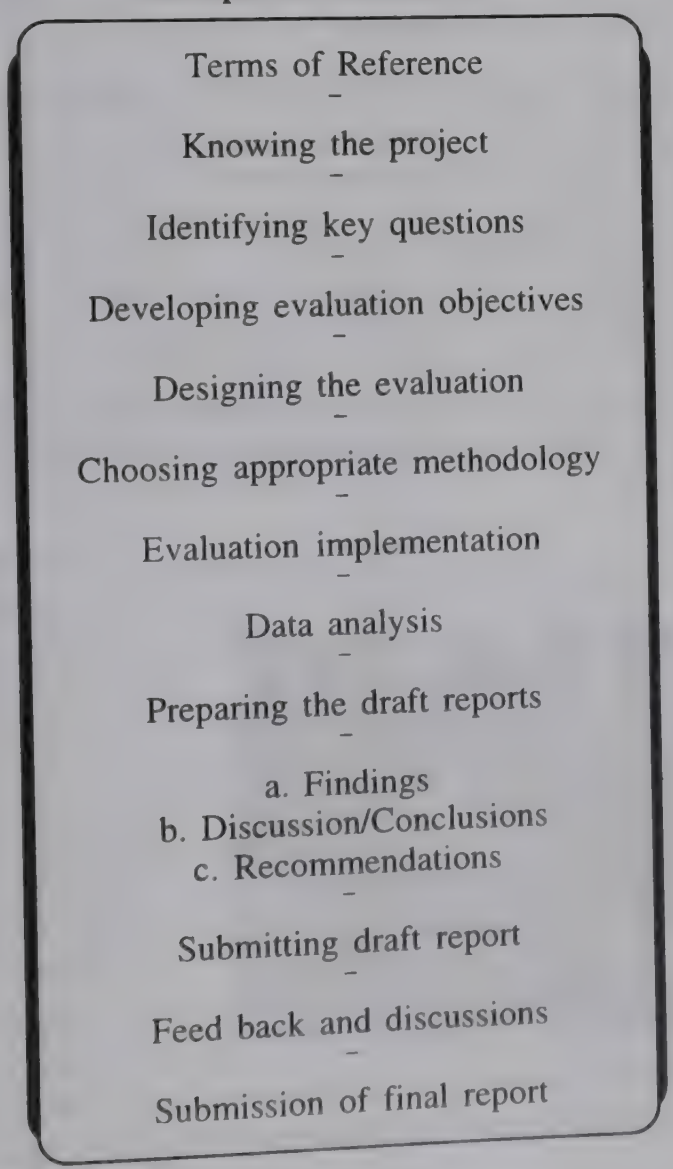
RUHSA has tended to favour more of data based evaluations than just descriptive or only qualitative evaluations. Most of RUHSA's evaluations have considerable data based information about the project. In a way it is akin to evidence based research. Data adds quality to the evaluation. However it requires considerable more time for data entry, editing and analysis. Those who like data to back up the findings are happy with RUHSA's evaluations.

In reality, this has made the work of RUHSA, "evaluative research" because the data is of research quality and design. The implications of this research is that much of the data can be used for writing scientific articles and thereby contributes to building a knowledge base in the area of evaluation. As there is a health team involved, principles of epidemiology are freely applied in the evaluations.

Steps in Evaluation

As in the area of training, before intensively getting deeper into evaluation, the staff had an opportunity to be trained under an external programme of the COADY international institute, Canada. This initially prepared the staff on the concepts of evaluation. As evaluation formed an important component of the DCHM course staff needed clarity in this area. Based on what was learnt a common system or what we called as steps in evaluation were derived. This ensured uniformity of approach to evaluation. These steps have stood the test of time. As publications are received of others' experiences in this area, they seem to validate RUHSA's approach. The following are the steps involved in a typical RUHSA evaluation. Some of the key steps are described in greater detail

Steps in Evaluation.



More recently the concepts of qualitative research are also widely applied in evaluations. In fact there is strong evidence emerging that the overall quality of any evaluation increases when both quantitative and qualitative information are judiciously used. The common methods used are, village or social mapping, focus group discussions, key informant interviews, free listing, file sorting, case studies, observations, transects etc. Both types of data beautifully complement each other.

One would assume that writing the Terms of Reference(TOR) is natural. It is amazing how many individuals cannot write a Terms of Reference and are at times dependant on the evaluators to help them write the TOR. Basically a TOR starts by identifying the organization commissioning the evaluation, the purpose of the evaluation in terms of further plans especially in relation to further funding, the content of evaluation with the key questions that should be answered, methodological aspects if any that is to be specified and the time frame of the evaluation. The above information makes it easy for the evaluators to plan and implement the evaluation.

Every effort is made to know the project as much as possible. Usually project plans, reports and secondary information are available. However if time and resources permit and if the evaluation is a major activity, an attempt is made to have at least one person of the evaluation team to visit the project and obtain as much information as possible. This helps to identify the key questions the evaluation should answer. Even if very little information is available at least the project objectives are obtained.

Then an attempt is made to write down the objectives of the evaluation. Along with the key questions, these objectives help to focus on the evaluation more systematically.

Jumbulingam and Jolly involved in the evaluation of EFICOR's Flood Relief Programme in Sambalpur, Orissa

In designing an evaluation the principles of epidemiological designs play a major part. Ideally, a four part pre-post evaluation design is preferred with controls at both the stages. When any one is not available or feasible then a post evaluation without any controls is the only alternative.

As much of RUHSA's evaluations are data based, the data analysis goes through a rigid process. All data is computerized and then edited and a printout is compared with the original data entered, with one person reading the original and the other makes necessary corrections. Quality control measures are carried out, by verifying extreme values and missing data.

The following are some of the selected major evaluations carried out.

SELECTED MAJOR EVALUATIONS CARRIED OUT

	Project	Place	Evaluator
1.	Baseline	RUHSA	P.R. Michael
2.	HEED	Bangladesh	Daleep Mukarji
3.	Midcourse	RUHSA	P.S.S.S. Rao
4.	Cost effectiveness of immunization	RUHSA	Logen Brenzel
5.	Profile of K.V.Kuppam - 1986	RUHSA	R. Abel
6.	Bethesda Hospital	Ambur	Daleep Mukarji
7.	DCHM course	RUHSA	P.S.S.S. Rao
8.	THADCO	North Arcot District	R. Jambulingam
9.	CODEP	Chetpet	R. Jolly
10.	Profile of K.V.Kuppam - 1992	RUHSA	R. Jolly
11.	TMSSS	Trichy	R. Jambulingam
12.	TINP -Child stunting	Tamilnadu	R. Abel
13.	KAMP	Bihar	R. Abel
14.	Jeyanthi Pathagar	Orissa	T. Thasian
15.	KIMIDI	Orissa	V. Sampathkumar
16.	YARR	Orissa	R. Jolly
17.	VSSS	Vellore	R. Jambulingam
18.	SMT	Thiruvannamalai	A. Mathew
19.	EFICOR Cyclone Relief	Orissa	T. Thasian
20.	EFICOR Drought Relief	Orissa	R Jambulingam
21.	EFICOR Flood Relief	Orissa	R Jambulingam

RUHSA places much emphasis on the draft report. However great the efforts taken in knowing the project, it is amazing how project personnel come up with more information on looking at the draft report. RUHSA gives sufficient time to organization personnel to read through the draft report and give feed

back. Basically factual errors are corrected as well as any new information that is provided may be added. The findings are not changed to suit the organization. RUHSA values feed back to the draft report and incorporates them into the final report as appropriate.

Management Information System (MIS)

The co-ordinator of evaluation activities in RUHSA also takes care of MIS. Initially it was called surveillance, monitoring and evaluation. All date generated by RUHSA services are consolidated under the MIS. This data is used for preparing reports and at times for publications . It helps to compare the service at different points in time.

However the major task under MIS is to update community based family information. Following the mid course evaluation in 1983 individual family folders were introduced for each family throughout the block. It took a number of years to complete the entire exercise in obtaining complete information of all the families. Since there were gaps in the family data in 1986, a renumeration process was carried out. This data was computerized.

There were two unique features of this profile. Each family had a unique Family Identification Number (FINO). Within every family, each individual had an Individual Identification Number (IINO). This number indicated the peripheral service unit (PSU) of RUHSA (2 Digits), habitation (2 Digits) and family number (3 Digits). This FINO is included in all service data files and helps to merge and retrieve the information needed. As the capacity of the computers increased, all family data was stored in an easily retrievable manner.

The initial data base consisted of the essential information relating to the demographic and socio-economic information on each family. On a monthly basis births, deaths and marriages were incorporated family wise. Service delivery information was entered, starting with childhood immunization and antenatal care.

The community data entered in the computer was collected by Family Care Volunteers and reported to Health Aides on a weekly basis. The Health Aides consolidated their data on a monthly basis and a Statistical Assistant computerized the data. This process has been regularly carried out for many years.

The most common use of this data for management is to identify the economic status of beneficiaries of health care. CMC provides considerable

charitable service to the poor which amounted to nearly Rs.150 million in 2001-2002 or 3 Million US dollars. Of this, one fifth of the total charitable services comprising of Rs.3 million was from RUHSA. Since the charitable services are earmarked for the poor, the MIS data makes it possible to verify the economic status of the individual patients. On a number of occations when there have been doubts regarding individual claiming special benefits because of poor socio economic conditions, this computerized family information has been able to correctly identify the individuals status.

The other major management support provided by the MIS data is for generating the immunization status of children so that those who have missed an immunization can be followed up. This list also becomes helpful when mass community wide immunizations are carried out. This then becomes a due list for immunization so that the correct children are identified and brought for immunization by the volunteers.

It also serves epidemiological purposes. Using this data it is possible to generate vital demographic rates such as crude birth rate, death rate, infant mortality rate, perinatal mortality rate etc. It is also possible to calculate coverage rates especially for immunization.

With data collected by 110 family care volunteers and supported by Health Aides and Rural Community Officers, every attempt has been made to ensure that the quality of data is as accurate as possible. Therefore periodically the data routinely computerized is revalidated by an independent team of investigators and where necessary corrections are made to the final rates.

In spite of all efforts there are limitations in this data. Over the years there have been no replacements for FCVs and Health Aides. Therefore data generation is almost absent from some pockets. Not everyone is interested in generating data in a consistently reliable manner. In spite of these limitations this data still serves a useful purpose.

Attempts are being made to continuously incorporate the FINO with all the development services. The most intensive application has been with Self Help Groups. In this manner MIS has been able to generate minimum data for maximum efficiency.

23. RESEARCH FOR POLICY CHANGE

Although service, training and research were the three main objectives of RUSHA, research was started last. The research carried out at RUHSA and the experience gained has influenced policies in public health practice. To begin with, the major researches carried out at RUHSA are listed below. Each of them is described in brief.

LIST OF MAJOR RESEARCH CARRIED OUT AT RUHSA

	Title of Research	Principal Investigator	Collaborating Institute/Dept.	Funding Agency
1.	Killed Polio Vaccine Trail	Dr. T. Jacob John	Virology Department	ICMR
2.	Chronic Obstructive Pulmonary Diseases	Dr. D. Ray	Respiratory Medicine	ICMR
3.	Metabolic Adaptation to a Low Plane of Nutrition	Dr. G. Mc Neill - PhD. Thesis	London School of Hygiene and Tropical Medicine	Ford Foundation. UNICEF. ODA. UK
4.	Severe Acute Respiratory Infection	Dr. Mark Steinhoff	Paediatrics Department	Clarke Foundation
5.	Effectiveness of Growth Monitoring	Dr. Sabu George - PhD Thesis	Cornell University	UNICEF / Thrasher
6.	Vitamin A Deficiency and Morbidity	Dr. Usha Ramakrishnan - PhD Thesis	Cornell University	UNICEF
7.	Comparing Waist Circumference and other Anthropometric Indicators	Dr Rajaratnam Abel	-	Own Funds
8.	Social Indicators of Health status	Dr. T.Thasian - PhD Thesis	Biostatistics Department	Own Funds
9.	Maternal Anthropometry and Nutritional Status of their Children	Dr. V.Sampathkumar - PhD Thesis	-	Own Funds
10.	Anemia in Pregnancy	Dr. Rajaratnam Abel	Multi Centric	USAID/ Mother Care
11	Female Infanticide	Dr. Rajaratnam Abel	-	ICSSR

1. Killed Polio Vaccine Trial

This was a phase III community based vaccine trial using Killed Polio or Injectable Polio Vaccine (IPV). IPV was given to children in half the block. The other half received only DPT or Triple Antigen. No Oral Polio Vaccine (OPV) was administered as it was not part of the RUHSA programme. Within three years significant differences were observed in comparison with the control area and so the trial was discontinued and IPV was administered throughout the block. Based on the success in K.V.Kuppam block, the French Company established a factory in India for manufacturing the injectable vaccine. However Phase IV trials at the district level by a different team failed, probably due to operational problems and the company was forced to close down the factory as OPV was chosen as the vaccine for India.

2. Chronic Obstructive Pulmonary Disease

This was an epidemiological study identifying the prevalence of chronic obstructive pulmonary disease (COPD). This research contributed to the overall pool of knowledge in the prevalence of COPD, smear positive tuberculosis, and 'tropical eosinophilia' both among adults and children.

3. Metabolic Adaptation to a Low Plane of Nutrition

The policy issue at stake at the time was whether "small is beautiful" It had been debated whether an individual with a small body mass actually consumes less energy and that the related BMR is therefore low. It was debated that if this was true, then food aid to developing countries could be reduced proportionately. This research showed that there was no difference in the BMI per kilogram of body weight of well nourished individuals and those with decreased body mass and that smallness in size was a sign of deprivation and did not show any adaptation.

4. Effectiveness of Growth Monitoring

Growth monitoring of children through regular monthly weighing of children had been promoted throughout the developing countries. However, there were indications earlier from RUHSA and from other centres that growth monitoring was not as effective as claimed. Therefore this research was carried out which conclusively proved that when other inputs are provided, growth monitoring by itself did not significantly add to better nutritional status among children.

5. Vitamin A deficiency and Morbidity

Earlier research elsewhere had shown that vitamin A supplementation had reduced mortality among children. Others had contested this finding. This research was carried out to determine whether Vitamin A supplementation would show any difference in selected morbidity indicators of respiratory infection and diarrhoea. There were no differences found.

6. Comparing Waist Circumference with other Anthropometric Indicators

When growth monitoring was promoted in many parts of the world, mothers in some areas refused to measure their children due to traditional beliefs. Therefore an alternative traditional practice of tying a waist string was studied. It appeared to have some value. Therefore as an objective measure, waist circumference as measured at different ages in a growing child was compared with height, weight and arm circumference. This research has reached the analysis stage.

7. Social Indicators of Health Status

A number of key social indicators were used to measure the effectiveness of RUHSA's work in K.V.Kuppam block. The neighbouring Pernambut block was chosen as the control. K.V.Kuppam block, the RUHSA project area, showed significantly improved social indicators than Pernambut block.

8. Maternal Anthropometry and Nutritional Status of their children

This research attempted to study the relationship between the anthropometric measurements of the mothers as well as their children. Some of the factors influencing the children's nutritional status significantly were caste, mothers and fathers occupation, thatched and terraced roof, number of rooms, mothers less than eighteen years age, mothers weight and BMI.

9. Anaemia in Pregnancy

Anaemia is a major problem in developing countries including India. This research focused on providing iron supplementation to pregnant women as well as on good antenatal practices that contributed to increasing haemoglobin levels. The research showed a significant difference on anaemia after intervention. The factors that stood out were increased knowledge of pregnant women on the causes, consequences and prevention of anaemia, increased consumption of mebendazole as an anthelminthic, and the increased knowledge of service providers.

10. Female Infanticide

This was a qualitative research on the practice of female infanticide in selected villages of K.V.Kuppam block and an education programme to bring about behaviour changes. The economic burden of a girl child especially in relation to dowry among a particular caste who owned land, was the major finding. The community indicated that they would rather kill a girl child than give the same for adoption. They expressed the associated grief and other factors that were studied.

Besides these major researches a number of smaller research studies have been carried out. Additionally, many of the evaluations carried out by RUHSA have used research rigidity in designing and data collection so that valuable data sets are available. Some of these relate to populations outside K.V.Kuppam block. As service gains priority, research activities have to be balanced with the demands of service delivery.

24. BEYOND VELLORE

RUHSA had the mandate to work beyond the boundaries of K.V.Kuppam and Vellore through training, consultancy, evaluation, and when opportunities came by they were effectively utilized. One such opportunity was the participation of the Diploma in Community Health Management students from many states of India. Instead of reactively responding to students, RUHSA was interested in proactively working in areas of greatest need assuming that Tamilnadu and Kerala were not on the list.

Instead of thinly diluting our limited resources in many areas, a fairly compact geographical areas was being considered. One of the areas of greatest need considered was the North Eastern Region. However long distances in addition to constant conflicts dampened one's spirits. It was at this time that RUHSA began to receive many requests from Orissa for training support. When the applicants were selected, they would not come, as they did not have financial support. Then free tuition was provided and later even free food. Still they did not have money for travel. RUHSA wanted to go through a systematic process of understanding the problems of Orissa before attempting to respond with possible solutions.

Consultation

In 1990, extra efforts were taken to get some students from Orissa for different training programmes in RUHSA at the same time. Eight participants attended the training. A one day consultation on Orissa was organized when they were at RUHSA. The students were the resource persons and they shared the problems and needs of Orissa. This was followed up in the following year by a visit by two staff members to Orissa and interacting with some of the key organizations working there. The inputs from these two processes formed the basis of a major project for Orissa.

This project was funded from 1993-1996 by AusAid, in partnership with the Friends of Vellore Australia. A number of activities were built-in with training provided both in RUHSA and in Orissa.. Consultancy and evaluation support to smaller NGOs were provided. Educational tours for NGO personnel were organized in Tamilnadu. A programme on adolescent girls was organized through NGO partners in Orissa. Each of these activities especially visits to Orissa helped to understand the problems and needs of Orissa first hand. During the project period, over 60 staff from RUHSA visited Orissa at least once in connection with one input or the other.

Conferences

However much more than these activities the three annual conferences organized in Orissa led RUHSA step by step to a proper understanding of Orissa's real need. The first conference was in Similiguda in 1994 and the theme was "The problems of Orissa". The major problems identified were inadequate water, health care, and 'jhum cultivation' or the 'slash and burn' method of clearing the jungle for cultivation.

With RUHSA's background in health care delivery, the second conference in 1995 explored in greater detail the health problems of Orissa under the theme "Health Care Strategies for Orissa". In this conference malaria was identified as the major health problem.

And so the third conference in 1997 was entitled "Malaria control Strategies for Orissa". This conference had more experts on malaria. One could understand the real unmet needs of malaria control in that state. Total ignorance even by service providers, lack of a proper strategy for its control, and inadequate services were making Orissa the number one state with malaria deaths.

Training Programmes

Training programmes were organized both at RUHSA and in Orissa. NGO participants were encouraged to attend various workshops conducted at RUHSA. Additionally they could participate in some of the longer programmes such as the one month Community Organization and Development course or the 12 month Diploma in Community Health Management. Over 400 participants came for the training to RUHSA. They were encouraged to attend the cream of RUHSA's workshops. It was amazing to see changes taking place among the participants as they came for different workshops. As in other areas, one senior and one junior staff formed the training team for programmes in Orissa.

Consultancy Services

Each year 10 organizations received consultancy support. Usually the organizations were small and were working in interior areas. Two staff members formed the consultancy team as in training, one being junior and the other a senior person. The entire organization was studied in detail and based on the experiences recommendations were made. When suitable candidates were available, training was recommended for them. In addition to helping the organizations, this also provided an opportunity to further learn about Orissa's needs.

Evaluation Services

Since evaluations demanded considerable time and effort, one evaluation was planned for each year. The organizations evaluated were somewhat larger than others but not as big as the leading NGOs of Orissa. Of course the bigger ones did not need inputs of this nature. Since RUHSA evaluations are data based, detailed evaluations were carried out. The teams for these evaluations were larger than other teams. In these programmes even junior staff would participate especially in the process of data collection. These evaluations gave the staff of RUHSA even deeper understanding of Orissa than the consultations. These were mutually rewarding experiences for both NGO and RUHSA as the staff on both sides gained valuable experience.

Study Tours

Again there were three study tours organized, one for each year. In the first year the tours consisted of mixed groups. Somehow the numbers were less than what was expected. Therefore in the second and third years these were organized exclusively for women. In spite of initiating with a large number, in actuality not as many participated as would have been ideal. In addition to a weeks visit to RUHSA and organizations in Vellore, during the second week they visited other organizations in Tamilnadu.

Adolescent Girls Programme

In an earlier project funded by AusAid, RUHSA carried out adolescent girls programmes in K.V.Kuppam block. This was adapted to the needs of Orissa in the second phase. Very interestingly there were very few unmarried adolescent girls in Orissa. In the same age category only married women participated. However when the programme was organized in urban areas, the response was more in line with RUHSA's expectation. A total of 506 adoloscents were educated.

Health Education Materials

Two sets of education materials were printed in Oriya. The first was a booklet on health education on various disease condition. This was translated and printed in Orissa. The second was a hand bill on malaria messages. The desk top preparation was carried out in Orissa and printed in Tamil Nadu where it is much cheaper.

Malaria Education

As the project was coming to an end, based on the knowledge gained in the last conference on malaria, a malaria education programme was organized throughout Orissa for NGO personnel. 15 two day programmes were organized in 15 districts covering 625 persons form all over the state. The topics covered were the concepts of malaria with focus on prevention. Additionally the skill of making blood smears was also provided.

RUHSA Orissa Anti Malaria (ROAM) Programme

Anticipating future opportunities for malaria control in Orissa, at RUHSA's cost a number of partners from Orissa were invited to participate in a strategic planning exercise so that the next project would focus on the correct and needed approach.

. So in the year 2000 when The Sir Ratan Tata Trust invited two proposals, the ROAM project was submitted as one project. This project focusing on malaria education of the community was accepted by the Trust for one year.

This project was started off systematically with a consultation with the participants of officials involved in malaria control and NGOs working with RUHSA and the Orissa Voluntary Health Association. During the consultation, NGO partners were selected through whom a population of over 100,000 people were covered. The approaches to behaviour modification successfully used by RUHSA in other programmes were adopted here in ROAM activities.

One of the unique features of this programme was the carrying out of three blood smear surveys. The first one was carried out in August 2001, the second one in March 2002 and the third one in July 2002. The data is shown in the following table.

Blood smear positive for malaria parasites

Samples	Blood smears	Pv cases	Pf cases	Smear positivity Rate	Pf %
1st Survey - July 2001	441	29	48	17.5	62.3
2nd Survey - March 2002	381	49	186	61.7	79.1
3rd Survey - July 2002	312	11	39	21.2	78.0

The activities under ROAM have been systematically carried out according to the following steps.

Steps in ROAM Malaria Control

Consultation on malaria with NGOs, Government officers and experts

–

Preparation of messages on malaria control

–

Base line survey on knowledge, attitude and practices and blood smear.

–

Strategic planning workshops in Orissa

–

Malaria Education Workshops in Orissa

–

Preparation of educational materials

–

Selection and training of volunteers

–

Education of community by trained volunteers

–

Monitoring of activities by RUHSA staff

–

Second blood survey

–

Post evaluation

–

Dissemination Conference

The baseline survey brought up some interesting aspects of malaria. A large number believed that drinking contaminated water caused malaria. Only a small proportion of individuals with fever were taking the full course of treatment with chloroquine. A large proportion did not know anything about malaria.

At the end of one year of this project there are clear indications that fever incidence, severe morbidity in malaria, referrals due to malaria, smear

Mr. Mathew Asirvatham visiting one of the Roam Partners during the monitoring process

positivity rate and malarial deaths have come down in most of the project areas. Constantly there is increased knowledge on the correct concepts of malaria. In many projects there was smooth functioning of Drug Distribution Centres and Fever Treatment Depots where full course of anti malaria treatment was provided very early in the course of the disease.

The moni-toring visits by staff have shown that the anticipated process of education has indeed taken place and that the community is more knowledgeable and are responsive to the new knowledge they have gained. The second blood smear survey has shown a high level of smear positivity rate. It is anticipated that over the next three to five years it would be possible through sustained efforts to bring down the level of malaria and the resulting deaths.

Bihar Programmes

The ROAM project being operated throughout Orissa is a logical follow up of a district wide Kala Azar control programme operated earlier through the NGO Navjeevan Seva Mandal in Bihar during the period 1992-1996. The last person interviewed as part of the evaluation of the Kala Azar Malto Project (KAMP) made the following statement. "Abhi kala azar bahooth dhoor chale gaya." (Now kala azar has gone very far away). Five years later when we visited the same district that statement still holds good.

Unfortunately malaria has replaced Kala Azar and many people are dying. A new programme based on the experiences of RUHSA has been initiated there. It is hoped that over time malaria would 'go away just as far away as Kala Azar did'.

Section IV

SYNTHESIS FROM EXPERIENCE

This is an attempt to synthesize the knowledge on various areas gained by RUHSA. While all these lessons are incorporated previously under various chapters, in this section, they are consolidated in areas where RUHSA has established key competencies. These findings, are based not only in RUHSA's direct inputs to the population of K.V.Kuppam, but additional knowledge gained by others which have been observed during consultancies and evaluations. It is envisaged that this would form one simplified means of sharing the lessons so that others can critically look at this and make suggestions for modification based on wider experience. Therefore RUHSA does not claim this as the last word but as a pathway to that goal.

This starts with the simple straight forward task of programme for the poorest and sustainable health care. Behaviour modification is the next. A charter for SHG and the principles of community ownership move to a higher level. This is concluded by abstract concepts on health and development

25. SUSTAINING HEALTH STATUS

1 Increased income in the hands of the people makes choices of needed health care for the people affordable and according to their convenience rather than according to provider convenience.

2 Increased knowledge on the factors affecting health and the way they should respond to every situation makes it easier for the community to make the correct choices.

3 Increased income has ensured improved food security leading to sustained reduction of stunting in the community as well as preventing other forms of severe malnutrition and leading to improved health status.

4 Having understood the importance of a small family in ensuring the health of the mother and child, the community would utilize services wherever available to limit the family size.

5 Having witnessed the elimination of many communicable diseases through effective and timely immunization, the community is empowered to demand this service from the government and would utilize other sources if that is not forthcoming.

6 The presence of well trained community based volunteers in health is a sustainable resource for the community for continued education and support for health.

7 Having succeeded in ensuring all children attend schools regularly and with improved education in the schools in K.V.Kuppam, the coming generations will make health a natural life style.

8 Community acceptance of the handicapped and their willingness to provide home based support as well as their ability to tap resources from the government and other sources would ensure appropriate care is regularly provided.

9 The presence of a large number of community based organizations starting from large numbers of effective Self Help Groups of women, other community groups such as Building Committees and Parent Teacher Associations, as well as Panchayat Raj Institutions would ensure the necessary support for health care.

10 A comprehensive approach to solving any health problem through community education for behaviour change, providing the necessary services and carry out relevant inputs as the community would sustain the changes.

26. STRATEGIES FOR POVERTY ERADICATION

1. Show positive bias towards the poor in development programmes.
2. Identify the poorest of the poor in each village ward or community.
3. List the poorest of the poor and publish their names in the panchayat or ward notice board.
4. Involve the poor in planning their own development.
5. Start with the capacity of an individual in taking up an economic activity.
6. Show priority to young widows even if they are not the poorest.
7. Providing vocational training to youth in a poor family is a very appropriate input.
8. Provide public welfare support for the poor in areas where expenditure can be reduced such as major health expenditures, widow's daughter marriage etc.
9. Involving the poor in community based organizations such as a SHG is a sustainable approach.
10. Supporting the rich in areas, which increases labour demand provides labour and income for the poor.
11. Food for work and other similar asset creating schemes support the poor during vulnerable periods.
12. Strategies that enhance the confidence of the poor are more effective than providing material inputs alone.

27. APPROACHES TO BEHAVIOUR MODIFICATION

- Clearly define the behaviour expected and the gap that exists with the current behaviour.
- Educate the community on the ideal behaviour expected for optimum health and well being.
- Use a curriculum approach with SMART behavioural objectives.
- Prepare a list of essential messages needed to reach the ideal behaviour.
- Leave the choice of the target behaviour to the individual without the provider imposing any acceptable target behaviour.
- Explain the alternate approaches available for behaviour changes and the level of efficacy of each approach.
- Take the community through stages in change in behaviour from awareness through knowledge, attitudes, and finally to practice.
- Participatory learning methods are more effective than provider based communication.
- Use multi media communications involving hearing, seeing, and personal involvement personally.
- All communication both by personnel and media must convey uniform and consistent messages.
- Promoting positive behaviour though difficult and time consuming is more sustainable than negative messages of what should not be practiced.
- Educate and motivate the entire community for change and not just the target community alone.
- When there is strong cultural resistance to an ideal behaviour promoted, avoid direct confrontation by circumventing the resistance.
- Establish networks and partnerships among users to sustain behaviour change.

28. A CHARTER FOR SELF HELP GROUPS

1 Start a SHG only when the group is ready and shows sufficient interest.

2 Insist on a weekly meeting with a pre planned agenda.

3 Insist on common decisions based on total participation.

4 All decisions must be carried out only after a resolution made is recorded.

5 Insist on weekly savings with all financial transactions made only in the meeting.

6 Depositing and withdrawing money by deputed persons should be made only after appropriate resolution.

7 Always maintain updated registers and inform all members of the financial position of the group.

8 Develop shared leadership by allocating responsibilities by rotation, using an annual action plan.

9 Ensure every member attends all modules of training and implements the follow up actions planned.

10 Make sure that either the animator or the representative or any other member attends all special programmes and review meetings.

11 When only few individuals attend a meeting or programme, they must give feed back to the group.

12 Carry out social action programmes according to the needs of the community.

13 Participate in all public functions in the community such as, gram sabha, school Parent Teacher Association meetings etc.

14 First start with internal loans at the proper time and then move on to external loans.

15 Choose appropriate activities for both individual and group loans so as to ensure one hundred percent repayment of loans.

16 Frame rules and regulations of the group and take bold disciplinary action when members default.

17 Carry out self-assessment, monitoring, and evaluation of the group periodically.

18 Plan on having a sustainable group independent of non government organization and government in managing the group.

The District Collector of Vellolre Mr. Mohan Dass with the SHG Women elected representatives of Panchayat Raj.

The Collector of Vellore Mr. Sivakumar, along with Mr. Dharmendra Pradap Yadav, Additional Collector and Manager, Dhanalakshmi Bank, K.V.Kuppam after handing over keys for the SHG vehicle under TAHDCO loan.

Traditional healers (Extreme ends) from the villages take classes each year for the PGDCHM students on traditional medicine.

29. EDUCATION AWARENESS LITERACY AND SERVICES

- While education is essential for development, what is missed during childhood cannot be made up completely through any other means.
- Adult education / literacy is only a means of rehabilitating those who have missed schooling and are illiterate.
- Even the illiterates can obtain functional skills if an activity impacts their life positively.
- Under current situations of public education sustainable literacy is possible only when an individual completes the eighth standard.
- Strengthening the existing school education is more cost effective than promoting adult education / literacy.
- Even in situations of illiteracy, people would use health and development services if effective awareness is provided.
- Literacy will develop if the community takes ownership of education at the community level, creating demand for effective education.
- Promoting functional Parent Teacher Associations is a positive means of ensuring sustainable education in the community.

30. PRINCIPLES OF COMMUNITY OWNERSHIP

1 Providing complete knowledge to the community is the first step of ownership.

2 Empowering the community to bring about behaviour change is essential for community ownership.

3 Organizing the community to collectively decide for themselves enables them to own the outputs of their decision.

4 Training the community in essential principles of community development, leadership and handling money is absolutely necessary for community ownership.

5 To be owners, social empowerment of the community must precede economic development so that the organised groups can mitigate community problems.

6 Wherever democratically feasible socially empowered groups must be encouraged to take part in the democratically elected leadership process.

7 With even a little sustained effort a socially empowered group can easily ensure resources start flowing both to individuals and to the group.

8 Resource rich organizations will naturally move towards supporting sustainable community ownership.

9 Besides increased income, decreased stunting among children is also a good indicator of successful community ownership.

31. RUHSA's LAWS ON HEALTH AND DEVELOPMENT

1 Health is both a measure and means of development.

2 NGOs and government must work together to ensure optimum benefits to the community.

3 A TEAM of professionals from Training, Education, Agriculture and Medical backgrounds are essential to bring about sustainable health and development.

4 A comprehensive multi strategic approach is necessary to overcome any health and development problem instead of relying on a single apparently successful approach.

5 Social empowerment of women is an essential prerequisite to sustainable economic development.

6 Preventive strategies are more cost effective in combating malnutrition, physical handicap, illiteracy, and poverty than remedical measures.

7 Behaviour modification is possible only when principles of learning are adopted using appropriate curriculum and communication strategies.

8 When community volunteers are utilized in a health and or development programme, their economic and financial needs must be met by socio-economic projects rather than monthly honorarium or wages.

9 Strong traditional and cultural practices can be overcome by gradually changing the direction than by direct opposition.

SECTION V

EPILOGUE

This section brings to a conclusion what RUHSA has been able to achieve in the area of health and development. Some of the moments of crisis and decision making are briefly touched upon to show God's sustaining hand over the past twenty five years. God has a clear purpose for RUHSA by serving the poor. Mention is made of how God was present and led in each step of RUHSA's path. And it concludes by stating in unambiguous words that RUHSA's sustainability is dependent on our Lord and Saviour who has said "So I am with you always even unto the end of the world".

32. THE SUSTAINING HAND OF GOD

Sustainability is understood primarily in a physical sense. However success in any venture requires the powerful sustaining hand of God influencing every decision made by the individual. Readers will understand if the narrative moves to the first person in this last chapter. Personal encounters with the living God cannot be written in the third person unless written by a third person.

Daleep and I were in the same batch when we were selected to CMC Vellore in 1964. By age Daleep is a few months younger. He was a product of the prestigious St. Paul's School, Darjeeling. I have nothing closer in fame to write about. In spite of such a vast gap in our schooling, yet in medical college, both of us established a friendship of an entirely different nature. The one close relationship I vividly remember is when both of us sat together one Saturday night till about dawn studying the anatomy of the brain and spinal cord. We took special efforts to understand and remember at what levels different nerves crossed over. That night what we studied has remained in my memory so that even if I go to an interior place, when I see a neurological lesion, with a little bit of recapitulation and based on the flaccid or spastic response of the four limbs, it is possible for me to broadly identify the likely level of the lesion.

However it was not studying anatomy that cemented our relationship. Both of us have the honour of belonging to the batch of 1964. In CMC's history, this was the time they increased the number of seats from 50 to 60. However, even though this medical college was started for women, instead of retaining parity in numbers there were 35 men and 25 women. The medical curriculum in our time was called, "Integrated MBBS course." Probably the batch of 1964 was the most disintegrated batch with 60 viewpoints on any topic. In spite of this apparent weakness, the individuality maintained by our batchmates has significantly contributed to our nation and the profession.

What actually brought us together was our common understanding of public health. As part of the subject Social and Preventive Medicine, we were allotted two families in a village called Pennathur to interact and learn from the families and to present a report at the end of two years. Surprisingly, even though the students prepared their reports separately there was a common thread linking economics with health. To most of us probably this was the last time we ever thought about this relationship.

On completing medical studies God took both of us in different directions. Daleep went to a mission Hospital in Andhra Pradesh while God took me to Nepal and Bihar. We kept in constant touch and continued to share our experiences. My interest in public health was whetted by an excellent presentation by Dr. Carl Taylor in Kathmandu. Daleep was able to amortise his sponsorship obligations much earlier than I could and went on to the London School of Hygiene and Public Health and later the London School of Economics(LSE). God very clearly blocked my path to the US for higher studies in public health, with the clear indication that the wanted me to wait for His time.

Daleep was appointed as the Programme Director of RUHSA on 17th January 1977. A week after he joined his new job I visited him in his office as I was passing through Vellore. Very naturally, he invited me to join his team with his new vision. I neither had a call from God nor did I have a desire at that moment to join the team and I went on to the mission hospital work. While both of us were going through different experiences, the situations remained such , that over a year later, he again called me to join his team.

At this time, I was mentally prepared to accept the call. But as I prayerfully opened the Bible, the message from Lord was clear and stood out distinctly. He said, "Be patient, and wait for the Lord to act." I informed Daleep word for word and then let it rest. Within a couple of months there was another desperate call. However, it was more subtle and tempting with a travel paid trip to RUHSA with my family and then make a decision. The entire story of the way He led us in the travel is kept aside for another occasion. What did happen was that we visited as a family and liked what we saw and agreed to be part of the team. Instead of "cutting the umbilical cord with my church" by resigning and joining as Daleep wanted, I opted to seek a deputation from the church.

The decision making process in releasing me took some time but interestingly God gave me a verse from the Bible the day before I got the relieving order. It read, "The time for the Lord to act has come." When the Lord acted, within two weeks we were in RUHSA and I joined duty on November 1, 1978.

In the early days of my stay in RUHSA, the two promises that God gave me were. "I am with you", and "My God shall supply all your needs." These two verses embody all that is sustainability. God's 'presence' and His 'supply' ensure permanent sustainability. All other sustainability is temporal. His presence very clearly supported me in my clinical and managerial roles.

"In His time" He made it possible for me to study in The Johns Hopkins University School of Hygiene and Public Health. He miraculously provided for all the financial needs during the year of study in USA. Without getting distracted after the year of study, we returned and settled down to ensure RUHSA's growth.

Grow RUHSA did, however, simultaneously two other contradictory issues also started emerging. Even before sustainability was talked about Daleep started raising this issue. He called it stability and viability of RUHSA. Visionary that he was, he realized that funding agencies will withdraw one day and he will have to look for alternative sources of funding. What better place than look at CMC the parent institution?

His charismatic and dynamic nature ensured that money started flowing quickly from funding agencies and at times unmanageably large amounts. The physical and human infrastructure grew very rapidly and with even greater financial needs. Just as Daleep was keenly interested in getting CMC pay more for RUHSA's core budget, there were others in CMC who were equally reluctant to increasingly fund a set up that was growing faster than any part of CMC had ever grown before. At the end of each budget planning process, in his request Daleep would put in a higher figure as CMC contribution. When the CMC Council passed the budget, every year it remained at the same Rupees one hundred thousand. To some in CMC, RUHSA was a liability as long as its "uncontrolled" programme director was in charge. Fortunately for Daleep he had the unfailing support of the then Director of CMC, Dr. L.B.M. Joseph and so RUHSA grew.

The second issue that began to emerge related to Daleep's charisma and dynamism. Within a short period of five years, he had brought about such a rapid change, people naturally got divided as Daleep's supporters and detractors. Suffice to say that some of Daleep's supporters were in the governing council. And so went the argument, "If in five years Daleep can make such an impact at RUHSA, if the London School of Economics returned CMC alumnus was handed the leadership of CMC, what might he not accomplish?" The issues were becoming clearer with his supporters raising the stakes by suggesting that some one younger like Daleep should take over the leadership of CMC, even bypassing seniority.

Two important documents of the year 1983 added more to the controversy although in slightly different ways. The first was the national budget presented by Shri Pranab Mukherjee, the then Finance Minister, Government of India. In his eagerness to raise resources he brought into the

tax ambit certain activities that RUHSA was involved in. If RUHSA has to pay tax, then CMC will also come under this net. Therefore the argument went that in the larger interest of CMC, RUHSA should be hived off independently. It appeared that clipping Daleep's wings was the goal in this process.

The second document was the report of the Mid Term Evaluation of RUHSA. This document unabashedly praised the work of RUHSA and in effect Daleep's leadership. In the hands of Daleep's supporters, this report further strengthened their argument for furthering his role in CMC administration.

As the drama reached it's climax, Daleep resigned. Shortly thereafter I was called to the Director's office and instructed to take over the leadership of RUHSA from Daleep's hands even as other administrative arrangements were being made.

As the various scenes started unfolding before our eyes, some of us were praying that God would keep RUHSA intact. Any separation of health and development would destroy the very foundation of RUHSA. God answered our prayer. But we had not prayed for change in leadership.

Shortly thereafter, a document on RUHSA was being prepared by one of the funding agencies. The author was clear that no account of RUHSA would be complete without touching on the leadership change, as there was a lingering suspicion that in the long run CMC would kill RUHSA. Having seen the director's response, I could clearly say. "The future of RUHSA is in the hands of its staff. They will make or break RUHSA and not the leadership of CMC." Time and again this issue was tested and it is clear RUHSA's future is in the hands of its' staff.

Ever since Daleep left the common refrain was "Two more years and RUHSA would close down." It is amazing how God's presence had sustained RUHSA. Daleep left RUHSA in its 8th year. God has enabled us to see the silver jubilee year. Sure just about every two or three years, one crisis or the other came up and threatened RUHSA. It would appear that was the end. However when the crisis was blown over, invariably people would say, "God saved and sustained RUHSA."

Having taken up the responsibility of leading RUHSA and in the process having obtained an indefinite extension of my deputation, one major decision remained. This related to the choice of my profession. I had to choose between a clinical career and a development pathway. After a considerable

period of waiting on the Lord, He made His call for development absolutely clear through His word in proverbs 31:8-10: "Speak up for people who cannot speak for themselves. Protect the rights of all who are helpless. Speak for them and be a righteous judge. Protect the rights of the poor and the needy". He has faithfully sustained me as I carried out his command although in an imperfect manner.

The sustaining hand of God was clearly visible in the last major crisis that RUHSA faced. In 1985, RUHSA was integrated as the youngest and biggest department in CMC. This was never the pattern of growth in CMC. RUHSA appeared to be an aberration when looked at from the history of CMC. One way of rectifying this was to systematically and mutually reduce the size of RUHSA. Step by step from a staff strength of 220 in 1984, it was reduced to about 140. Except for a few project staff who were terminated, not filling of vacant posts and absorbing some within the parent institution, were two ways in which the staff strength was brought down without affecting the department's work. However, in its 16th year RUHSA was asked to relinquish 25% of its staff following the then worldwide policy of "lean and mean downsizing." This downsizing also included key staff whose departure would make RUHSA lose its basic character.

The challenge was strong. I could concede and try to manage with what was left behind. I believe with God's help it could have been done. The other alternative was to take a determined stand in make an appeal to the higher Council. As I earnestly prayed and sought advise from Christian friends, it was clear that God wanted me to take a determined stand "in a Spirit of Christ". God led me step by step, showing me when, where, how and what words I should use. When the last major crisis had blown over, it was clear that Christian Medical College with its values built over a century was the winner. There was no feeling of vanquished or winner. CMC's time tested grievance procedure was operative in the fairest manner at the highest levels. Even more so, God's words were victorious. St. Paul's desire was fulfilled, "Surely there is at least one wise person in your fellowship who can settle a dispute between fellow Christians". There were many in CMC's larger governing council.

The past 25 years has seen the sustaining hand of God moving in RUHSA. Threats from within and outside have seen God victorious. While much of RUHSA's programmes and activities have been sustained another major area relates to leadership sustainability. One of CMC's successes has

been the passing on the torch of leadership successfully over a hundred years. In 25 years, RUHSA has seen only two leaders. How about the future?

With change in leadership there is bound to be changes in emphasis on programmes roles and ethos. However if the following principles are adopted with any leadership change, then RUHSA's leadership would be sustained even as in the parent institution.

1. Change should be based on God's leading, confirmed through prayer.
2. Change should be part of a vision, shared goal and with clear directions.
3. Change should be participatory both from within and with outside leaders.
4. Change should be systematic, taking alternatives into consideration.
5. Change should be need based, identified through meetings and research.

God started RUHSA with a plan and purpose of serving the poor. As long as that goal and purpose is maintained, every successive leader can be assured of God's sustaining hand on RUHSA.

A few months after I had joined RUHSA a young graduate of CMC was employed. For nearly half an hour she had been struggling with applying a forceps for a delivery patient. One Family Care Volunteer was standing nearby and helping the patient. Finding it difficult I was called to help. As usual as soon as I took over the patient a short prayer was offered and the forceps was applied. Within half a minute the baby was out healthy and crying out loud. For a moment I was elated. And just then the FCV opened her mouth and said, "Thank you doctor." Probably my ears went up even higher. Then she concluded, "..... for showing me God." I was humbled by those words when I realised that instead of giving God the glory I was taking credit for something He had helped. It is to this humble service of "Not to be ministered unto but to minister" that those who have opted to serve in Christian Medical College are called.

Just as I completed this last chapter very surprisingly the devotion for that day included two verses from the Book of Psalms. Psalms 54:4 reads, "Surely God is my help, the Lord is the one who sustains me." And in the next chapter, Psalms 55:22 states, "Cast your cares upon on the Lord and He will sustain you." "I have read them so many times before and yet never did they mean in this context of sustainability which is ultimately from our loving Lord and Master.